

ENVIRONMENTAL ASSESSMENT BOARD



ONTARIO HYDRO DEMAND/SUPPLY PLAN HEARINGS

VOLUME: 26

DATE: Monday, June 10, 1991

BEFORE:

HON. MR. JUSTICE E. SAUNDERS Chairman

DR. G. CONNELL Member

MS. G. PATTERSON Member

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ENVIRONMENTAL ASSESSMENT BOARD
ONTARIO HYDRO DEMAND/SUPPLY PLAN HEARING

IN THE MATTER OF the Environmental Assessment Act,
R.S.O. 1980, c. 140, as amended, and Regulations
thereunder;

AND IN THE MATTER OF an undertaking by Ontario Hydro
consisting of a program in respect of activities
associated with meeting future electricity
requirements in Ontario.

Held on the 5th Floor, 2200
Yonge Street, Toronto, Ontario,
on Monday, the 10th day of June,
1991, commencing at 10:00 a.m.


VOLUME 26

B E F O R E :

THE HON. MR. JUSTICE E. SAUNDERS	Chairman
DR. G. CONNELL	Member
MS. G. PATTERSON	Member

S T A F F :

MR. M. HARPUR	Board Counsel
MR. R. NUNN	Counsel/Manager, Informations Systems
MS. C. MARTIN	Administrative Coordinator
MS. G. MORRISON	Executive Coordinator



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F. MACKESY		ON HER OWN BEHALF
M. BADER		DOFASCO

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1 ---Upon commencing at 9:03 a.m.

2 THE REGISTRAR: Please come to order.

3 The scoping will now be in session. Please be seated.

4 MR. HARPUR: Good morning. Welcome to
5 scoping Panel 3. I understand that by virtue of some
6 time losses in our scheduling, there has not yet been
7 an opportunity for Hydro and the various parties to
8 chat, at any length, on the telephone about the
9 statements of concerns and the response of Hydro and
10 the statement of proposed issues.

11 As I understand the way we might best
12 accomplish our purpose this morning, I would like to
13 begin by letting people know that for at least the
14 first few minutes, it would probably be helpful if
15 Betsy and Jake were to spend a little time with the
16 parties who have problems with the way in which the
17 statement of proposed issues has been drafted in
18 response to the statement of concerns.

19 So, in other words, those people who are
20 not content with the way in which their concerns have
21 been dealt in the statement of proposed issues should
22 spend the first few minutes of this morning, if they
23 will, speaking with Betsy and with Jake about those
24 things in the hope that we can reach a consensus.

25 To the extent that we have not reached a

1 consensus after those discussions have taken place, we
2 will review the matters that remain outstanding; and if
3 even at that stage they haven't been resolved, the
4 panel can attempt to deal with them.

5 So, what I propose to do is turn matters
6 over to you people to discuss with Betsy and Jake for,
7 I would guess, the next half hour or so. I will leave
8 it there.

9 Mr. Howard?

10 MR. HOWARD: Who is first?

11 MR. HARPUR: No one seems to be rushing
12 to the podium. Maybe it is the case that those who are
13 here are content with the way matters have been dealt
14 with.

15 MR. KELSEY: No, they are not.

16 MR. HARPUR: I thought that was too
17 optimistic.

18 MR. HOWARD: I wonder, do we need to have
19 all this recorded for posterity?

20 MR. HARPUR: Probably not. Why don't we
21 shut these things off then for the time being and wait
22 and see what progress you people can make.

23 ---Recess at 9:09 a.m.

24 ---On resuming at 10:30 a.m.

25 THE REGISTRAR: This hearing is now in

1 session. Please be seated.

2 THE CHAIRMAN: Mr. Howard.

3 This is the Panel 3 scoping session and
4 the base document, I guess, in a non-prejudicial sense
5 is the letter or memorandum, I guess, from Ms. Harvie,
6 dated June 6, 1991.

7 MR. HOWARD: Yes, Mr. Chairman, I think
8 that the time prior to our gathering with you this
9 morning has been usefully spent. We discussed with, I
10 think, everybody who was here their remaining concerns
11 at the matters which we identified beginning at page 4
12 of the statement of proposed issues as matters to be
13 addressed by later Ontario Hydro panels.

14 And what we meant to convey was that this
15 panel will deal with concepts of costing and avoided
16 cost and methodology and that the details will be dealt
17 with with respect to particular options by the panels
18 later being called, and finally wrapped up at Panel 10
19 where the major plans are discussed.

20 Now, I think that I can say that we have
21 satisfied everybody that the removal to later panels
22 does not mean that the general concepts or the
23 methodological matters will be dealt with by Panel 3.

24 I think that one or two parties may have
25 some residual concerns, and I will leave it to Mr.

1 Kelsey to express his concerns because his concern is
2 that by assigning them to later panels, we would
3 attempt to preclude questions to the existing panel and
4 that is not our intention, and he can express what he
5 believes to be the agreement that he wrung out of me
6 across the table a few minutes ago. I think that is
7 satisfactory.

8 After that has been done, may I suggest
9 that Mr. Poch will speak to the order of
10 cross-examination which I believe should be dealt with
11 today as well.

12 And perhaps when we get to the end, I
13 could speak about scheduling as to when we might be
14 expected to be reached.

15 THE CHAIRMAN: Thank you.

16 Mr. Kelsey, do you have...

17 MR. KELSEY: Yes.

18 The main question that Mr. Howard and I
19 discussed was the extent to which some of the concerns
20 that have been expressed on behalf of Northwatch were
21 matters of detail that should be left to the later
22 panels. And the way that we have worked it out is to
23 have a general opening to Northwatch's concerns that
24 take care of that in relation to all of them. And then
25 there are two specific ones that we agree should be

1 deferred to later panels.

2 The opening that we have agreed on is as
3 follows: The concerns of Northwatch on the general
4 principles of cost determination without venturing in
5 this panel into the details thereof are as follows...
6 So that that then covers all of them so that that
7 allays Mr. Howard's concern that I might have wanted to
8 get into, which I didn't, details of cost determination
9 at this stage.

10 The two concerns that we
11 have agreed should be deferred are Nos. 2 and 11.

12 THE CHAIRMAN: 2 and 11 with reference to
13 your statement of concerns?

14 MR. KELSEY: On our statement, yes,
15 that's right.

16 THE CHAIRMAN: Just a moment until I turn
17 it up.

18 MR. KELSEY: And a sentence of No. 3, the
19 second sentence of concern No. 3.

20 THE CHAIRMAN: 2 and 11, did you say?

21 MR. KELSEY: 2 and 11, yes. 2 is
22 deferred to Panels 4 to 9.

23 THE CHAIRMAN: Yes.

24 MR. KELSEY: And 11 is deferred to Panel
25 4, demand management.

1 THE CHAIRMAN: Yes. And then you said
2 something about No. 3, did you?

3 MR. KELSEY: Yes, the second sentence of
4 concern No. 3, which refers to load forecasting. That
5 sentence which says that all of its load forecasting
6 presumes that the trends of the past will continue in
7 the future, I have agreed that that be omitted.

8 MR. HOWARD: What about 10?

9 MR. KELSEY: 10 stays.

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1 [10:37 a.m.] I think that expresses our agreement, and
2 we have resolved our differences. Thank you.

3 THE CHAIRMAN: Thank you, Mr. Kelsey.

4 Does any other party wish to make
5 submissions on Panel 3 issues?

6 With that then can we say that Panel 3
7 issues are resolved? There are two other things to
8 deal with. Is there interrogatory matters that have to
9 be dealt with, Mr. Shepherd?

10 MR. SHEPHERD: Yes.

11 THE CHAIRMAN: Order of
12 cross-examination, perhaps we should deal with order of
13 cross-examination first. Would that be convenient?
14 Mr. Poch?

15 MR. D. POCH: Thank you, Mr. Chairman. I
16 have distributed a memo dated June 6, which I hope the
17 Board has a copy of.

18 THE CHAIRMAN: Just a moment. Do we have
19 a copy?

20 MS. MORRISON: We should have.

21 MR. D. POCH: I have extra copies.

22 THE CHAIRMAN: I don't remember seeing
23 it, but that doesn't mean it hasn't been circulated.

24 MR. D. POCH: Perhaps I can continue. In
25 any event, the order there, with the one change being

1 that MEA would precede questions on behalf of AMPCO, in
2 other words, MEA would go first. It is acceptable with
3 a few notes.

4 First of all, I should perhaps say for
5 the benefit of whoever follows in my footsteps and
6 tries to orchestrate Panel 4 cross that I had done what
7 we've done before, which is wait for the statements of
8 concern, to see what people's concerns are and who
9 wishes to cross before settling the order.

10 That raised a difficulty for some counsel
11 who said, "Well, I am not really concerned about going
12 first. It is just pretty late in the day to be told
13 that I have to start cross examining four days down the
14 road kind of thing."

15 So, I would just suggest that perhaps we
16 could make it our practice to try to settle the list
17 earlier on. I assume that is not a problem for anyone.

18 In that vein, everyone was in the same
19 position that the thought of being called upon to start
20 cross before next week was met with some horror. But I
21 take it that that is unlikely to be, certainly unlikely
22 to be an issue, given the remaining cross on Panel 2
23 and the advice I have from Ontario Hydro that their
24 evidence in chief would be about a day and a half.

25 The other matter that arose was the

1 position of the government, and I spoke to counsel for
2 the government agencies, and they have advised that the
3 government agrees that social and environmental costs
4 should be included in avoided cost for planning
5 purposes. Accordingly, we don't have any difficulty
6 with them following on this panel.

7 Other than that -- well, with that the
8 list seems acceptable to all, if it is acceptable to
9 the Board.

10 THE CHAIRMAN: So, maybe I should just
11 read it out. I don't know if you all have it, but it
12 starts with MEA and AMPCO and CEG, and IPPSO, CAC,
13 ONGA, Northwatch, SESCOI, City of Toronto, South Bruce,
14 OPHA, then the native groups, then Mr. Hunter, then
15 Mrs. Mackesy, then Energy Probe, and then the
16 government.

17 MR. D. POCH: It should perhaps be noted
18 on the record that MDA, the Moosenee Development Area
19 Board, would follow the native groups before Mr.
20 Hunter.

21 THE CHAIRMAN: Right.

22 We would probably then -- I think you are
23 quite right about getting the order of
24 cross-examination straightened out for Panel 4 as early
25 as possible, and perhaps we should think about doing

1 that reasonably soon, at least no later than before we
2 break for the summer.

3 MR. D. POCH: We are leaning on the MEA,
4 and they are considering whether they could take on
5 that chore at this time. If not, amongst us we will
6 find someone else.

7 I should just mention, Mr. Chairman, in
8 correspondence with counsel for Hydro, a copy to the
9 Board there, we raised a question about the timing of
10 interrogatory responses or supplemental responses.
11 Perhaps after Mr. Shepherd is finished, or prior to
12 that, Hydro's counsel can just advise on when they
13 anticipate these answers, and that may resolve that
14 matter.

15 THE CHAIRMAN: Okay. Thank you, Mr.
16 Poch.

17 MR. HOWARD: Mr. Chairman, I wonder if
18 this would be an appropriate to time to talk about
19 scheduling, because I have spoken to some counsel, and
20 it is unlikely, as we see it, in view of the site visit
21 tomorrow, that Panel 3 would be called before Thursday
22 morning. It certainly won't finish in one day and is
23 likely to be closer to two days than a day and a half.

24 I was wondering, in view of the
25 situation, whether we could plan on beginning Panel 3

1 on Monday? I'd love to have them start under
2 cross-examination Thursday afternoon so that I can take
3 the weekend off, but if nobody has any objection, I
4 don't think it will delay down the road, because it is
5 unlikely that Panel 4 will be reached before the summer
6 break in any event and probable that we can close-out
7 Panel 3 before then. if that is satisfactory to the
8 Board, I believe it is satisfactory to most of the
9 people in the room.

10 THE CHAIRMAN: I think that makes sense.

11 MR. HOWARD: It certainly makes sense to
12 Mr. Snelson, who is on both panels.

13 THE CHAIRMAN: We will start then Panel 3
14 no earlier than next Monday morning.

15 MR. HOWARD: Thank you, sir.

16 THE CHAIRMAN: Now then we have to deal
17 with interrogatories, Panel 3 interrogatories, and you
18 have something, Mr. Shepherd, and Mr. Poch has
19 something. Anyone else have Panel 3 interrogatory
20 problems?

21 MR. HOWARD: Yes, I think I can satisfy
22 Mr. Poch's concern, because I was advised this morning,
23 there are about 24 supplementary interrogatories, which
24 are in the course of being answered. I am advised that
25 it is anticipated that they will all be completed,

1 hopefully, by Monday of next week and certainly by
2 Wednesday of next week. Some of the longer ones may be
3 a little more difficult, but starting Panel 3 on Monday
4 will help in that. So, I think we will meet
5 everybody's requirements.

6 Mr. Shepherd and I have had the
7 discussion about his motion this morning, and you will
8 be glad to hear that there are only two issues left
9 which he wishes to speak to, I believe.

10 THE CHAIRMAN: Mr. Poch?

11 MR. D. POCH: Mr. Chairman, if I could
12 just begin, I am grateful for that. That probably
13 alleviates my concern. It may be if questions arise
14 out of those, and they haven't been included in my
15 cross the first time through, I will want to rise and
16 ask a couple questions later on. I will try to avoid
17 that. Thank you.

18 THE CHAIRMAN: Thank you, Mr. Poch.

19 Mr. Shepherd?

20 MR. SHEPHERD: Mr. Chairman, there were,
21 I guess, five things to be dealt with, interrogatory
22 3.14.34, which is still outstanding, and I will deal
23 with that in a second.

24 Interrogatories 10.14.83 to and including
25 10.14.98.

1 THE CHAIRMAN: Wait a minute now. Are
2 these listed in your...

3 MR. SHEPHERD: The easiest reference is
4 the applicant's statement of why answers are required,
5 because it has a nice concise list.

6 THE CHAIRMAN: All right, thank you.

7 MR. SHEPHERD: So, the first of those
8 paragraphs I will speak to in a second.

9 The second of those paragraphs, 10.14.83
10 through 10.14.98, 16 interrogatories, Mr. Howard has
11 advised me this morning that they will attempt within
12 the next about ten days or so, or two weeks, to provide
13 us with whatever answers they can.

14 He has warned me that some of the answers
15 may be limited because of volume, and I have agreed
16 that we'll take a look at what they do and see whether
17 a problem exists later. Those are all the
18 interrogatories with respect to the consistent energy
19 set.

20 Interrogatories 10.14.99 through
21 10.14.101 relating to insurance, Mr. Howard has advised
22 that they will be answered by next week sometime.

23
24
25 ...

1 [10:45 a.m.] Interrogatory 10.14.102 was answered this
2 morning, and I have, in fact, in my hand the prospectus
3 that we requested. The last two interrogatories I will
4 be speaking to in a moment.

5 So, we have only two issues left. The
6 first issue is a question of whether certain
7 information is commercially sensitive, and the second
8 one is a question of the access by intervenors to
9 accounting decisions of Ontario Hydro. Let me deal
10 with the first one.

11 3.14.34 as it has been understood by
12 Ontario Hydro and IPPSO over the course of some
13 discussion, asks Ontario Hydro to give us examples of,
14 in essence, actual avoided cost calculations. There
15 are some illustrative examples in the materials. We
16 have asked them just to show us how they have actually
17 done it in the past, a few examples. They have advised
18 us that any of those calculations would be commercially
19 sensitive and, therefore, they would not be allowed to
20 provide them to us. That is, they would, in essence,
21 be calculations done for the members of my client and,
22 therefore, they would be disclosing to us information
23 about my client's members that shouldn't be on the
24 record.

25 In fact, Mr. Howard this morning said,

1 why don't you go and ask your clients, to which the
2 short answer is, Hydro won't provide those calculations
3 to non-utility generators. So, I couldn't ask my
4 clients, even if I wanted to.

5 What we have suggested in response to
6 that concern last week was change the numbers
7 sufficiently that we can't identify the project, but
8 without changing the material nature of the
9 calculation. Make sure it's still representative, but
10 change the number of megawatts of the project and the
11 distance of the project from the nearest interconnect,
12 those sorts of things which are the identifiers of a
13 project, and then we won't know who it is but we will
14 still have a representative example.

15 I understand Mr. Howard's position
16 currently, which he will speak to, to be that you
17 couldn't change the numbers sufficiently to disguise
18 them without making them no longer representative. I
19 disagree.

20 That is the first issue. My submission
21 on that is very simple. I don't see how we can talk
22 about avoided costs unless we see some real life
23 examples of how it's done.

24 The second issue is much more fundamental
25 and much more difficult.

1 Interrogatories 11.14.24 and .25 are
2 essentially two ways of trying to get the same
3 information. Indeed, I think I can make it clear that
4 getting an answer to either would solve the problem.

5 The first says, please let us look at
6 your accountant's working papers. I will get to why in
7 a second. The second says, okay, if we can't look at
8 your accountant's working papers, please provide us
9 with copies of your internal documents on these
10 accounting issues, and we do a list that's relatively
11 lengthy.

12 This discussion about the accountant's
13 working papers and related information started in, I
14 think, January when I commenced discussions with Mr.
15 Campbell about this very point. Ontario Hydro's
16 response at that time was to say, why don't you come in
17 and talk to us and we will see what we can do. After
18 discussions back and forth, the result was a meeting
19 between our accounting experts and a group of Hydro
20 people, accountants and others, at which they basically
21 said, you can't see our accountant's working papers, go
22 home.

23 Unfortunately, and I will take the blame
24 for this, I guess through miscommunication between our
25 accounting expert and myself, he didn't tell me that he

1 had been told that he wasn't going to get this for
2 about three or four weeks. As soon as he told me I put
3 in these interrogatories saying, please provide them.

4 Ontario Hydro has certainly known for a
5 long time that we wanted this information. The reason
6 why we asked for it in the first place came out of an
7 Ontario Energy Board hearing in the fall. At that
8 Ontario Energy Board hearing on net income, quite a
9 number of pieces of information with respect to Ontario
10 Hydro's accounting practices were filed, and in certain
11 specific areas. Not in any way the bulk of the things
12 that we have asked for, but they were, in certain
13 areas, they were quite thorough. And there were a lot
14 of surprises there about the sort of individual
15 judgments they were making about accounting decisions.

16 Our response to that was to say, well, if
17 they are doing that in these areas, which were some
18 depreciation and some capitalization of interest areas,
19 then what are they doing in other areas?

20 Part of our case on avoided cost is going
21 to be that there is a systematic bias in Ontario
22 Hydro's methodology and assumptions that has a lot of
23 little decisions, hundreds of little decisions in fact,
24 each of which pushes the avoided cost methodology or
25 pushes the underlying accounting which will drive the

1 avoided cost methodology, towards central generation
2 and away from smaller, shorter lead time projects, and
3 especially away from projects not owned by Ontario
4 Hydro.

5 Also, incidentally - although I guess for
6 Mr. Poch it would not be incidental - also pushes
7 Ontario Hydro's planning away from demand side
8 management.

9 It is going to be difficult, in fact, in
10 Panel 3 cross-examination to deal with this. We expect
11 to spend a long time going into details which are very
12 tedious, because the only way you can do that is to
13 look at the specific details and say, here is another
14 decision that is just slightly biased in favour of
15 central generation, and you go through a number of them
16 and it becomes clear.

17 We can't do that unless we see all of
18 those individual judgments that they make. And those
19 will generally be in their accounting working papers or
20 in the internal documents that they have on accounting
21 decisions.

22 These are very little decisions. They
23 are decisions like when you are looking at mothballing
24 a plant, do you treat this \$500,000, say, for a
25 specific item, as being part of the mothballing costs,

1 or do you consider part of OM&A and assign it to the
2 existing system cost. There are hundreds and hundreds
3 of those decisions.

4 Part of our case will be, that every time
5 they make one of those decisions, they make it in the
6 way that will favour projects with high capital cost
7 and low operating costs.

8 Therefore, it is our submission that we
9 should be entitled to look at this material. We had
10 asked them originally, could we just look at the
11 accountant's working papers and advise them what we
12 need. They have refused to allow us to even look at
13 them, and so all we can do is ask for all of them.

14 Those are my submissions.

15 THE CHAIRMAN: I suppose the
16 confidentiality aspect comes into this one, too, or
17 sensitivity, or whatever it's called, does it? Is it
18 an issue here? Because some of the working papers
19 would be involved in transactions with NUGs, and so on.

20 MR. SHEPHERD: It hasn't been raised by
21 Ontario Hydro, but yes, I believe that's true. In
22 fact, in our original discussions we said we understand
23 that when we look at the working papers there will be
24 some that we can't see, because, for example, if you
25 are in the middle of negotiating a contract on

1 something, you have to tell the auditors, but you
2 shouldn't be telling anybody else until you have
3 finished it, and that's quite legitimate. We have no
4 problem with that.

5 THE CHAIRMAN: I guess the real nub of
6 the problem is, as I understand what Mr. Howard was
7 saying this morning, that they are going to -- the
8 issues are the principles that guide Hydro in making
9 its accounting and costing decisions, the methodology
10 of reaching those things, and generally that should be
11 fully explored.

12 The difficulty that we have here is the
13 shear volume, in your own words, hundreds and hundreds
14 and hundreds of working papers, and I get a little bit
15 concerned about going into that. But on the other
16 hand, your issue is that underlying all these, there
17 may be some principle or bias or attitude, or however
18 you want to describe it, that favours one kind of
19 decision against another when accounting judgment is
20 brought to play.

21 MR. SHEPHERD: I have racked my brains,
22 Mr. Chairman, for a way of demonstrating that in
23 evidence without actually looking at a series of
24 examples of that sort of thing happening, and I don't
25 see how else you can demonstrate it, except to say,

1 here are 20 decisions, and as you see, each one has
2 this little bias.

3 THE CHAIRMAN: It's rather frightening to
4 think about, having to go through it in that level of
5 detail.

6 MR. SHEPHERD: Mr. Chairman, it's not my
7 intention to go through all of them, I assure you. I
8 intend to take a random sample.

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1 [10:55 a.m.] THE CHAIRMAN: Thank you, Mr. Shepherd.

2 MR. SHEPHERD: Mr. Howard.

3 THE CHAIRMAN: Mr. Howard.

4 MR. HOWARD: Mr. Chairman, let me deal
5 first with the motion with respect to the answer to a
6 request for the detailed calculations with respect to
7 sites. I think it is important to look at the answer
8 to that question. First of all, the question: We are
9 talking about avoided cost and the estimates or the
10 potential and value for non-utility generation and
11 demand management.

12 The first question A is: While the
13 determination of the avoided cost is complex,
14 sensitive, site specific and involving considerable
15 subjective judgment, can Ontario Hydro provide a range
16 of the avoided cost and benefit/cost ratio for each
17 site where the relevant economic analyses were
18 conducted?

19 And B: If the applied avoided costs for
20 all of the sites were increased by several increments,
21 say 5 per cent each for a total of four, how many more
22 sites would be included and what would be the total
23 economic potential?

24 And C: Provide the adopted avoided cost
25 and levelized life cycle cost for each site.

1 Now, aside from commercial sensitivity
2 which I will deal with in a moment, the answer
3 indicates that the range is in Exhibit 85, which will
4 be spoken to be Panel 3.

5 B, we raise the question of commercial
6 sensitivity and point out that the NUG panel will deal
7 with incremental changes and refer to Exhibit 83 and
8 some figures in the planned report.

9 And, finally, the information requested
10 with respect to each site is clearly commercially
11 confidential.

12 My question to Mr. Shepherd this morning
13 was perhaps not as naive as it sounded because I asked
14 him why he didn't get it from his clients and he told
15 me the answer, and the answer is they don't have it,
16 and of course they don't have it. If we were required
17 to provide the range of our calculation for each site,
18 it is not difficult to see what the result of a
19 negotiation would be.

20 It is not only commercially sensitive
21 vis-a-vis different potential NUG sites, but it is very
22 sensitive with respect to a particular site where
23 negotiations may follow. Telling the other side what
24 your range of values is is not a great way to begin
25 negotiations.

1 Then my friend has amended the suggestion
2 to say, give us one, that is, to use the language in
3 his letter, he says disguise the site by changing the
4 matter but don't alter the true nature of the
5 calculation.

6 Our position on that is simple. We have
7 done it in the illustrative examples in Exhibit 85.
8 And our position is very simple on this. Looking at
9 the material on the record, giving more would either
10 disclose to competitors the situation of their
11 competitors or would disclose to people with whom we
12 have to negotiate what the range would be.

13 To give an example that is disguised so
14 much that that won't occur, we are driven back to the
15 illustrative example which he already has.

16 THE CHAIRMAN: You said that is 85,
17 Exhibit 85?

18 MR. HOWARD: There are illustrative
19 examples in Exhibit 85, as my friend conceded in
20 argument this morning. He obviously needs the
21 information to cross-examine the people who will be
22 here to be cross-examined.

23 And if this Board then determines that
24 the illustrative example is not sufficient, we can
25 perhaps work out some way. But if we now give an

1 illustrative example, disguised so that it doesn't
2 refer to any particular site, in our submission, he
3 will be no further ahead than he is at the moment.

4 THE CHAIRMAN: Because he has that in 85?

5 MR. HOWARD: Yes.

6 THE CHAIRMAN: I haven't looked at 85 to
7 see what it says, but --

8 MR. HOWARD: Well, the illustrative
9 examples, I am told, begin at page 10. They will be
10 discussed in detail by Panel 3 and explanations will be
11 given and, certainly, as is with most of these
12 calculations, explanations are required, at least for
13 me.

14 My friend is correct that I have
15 indicated that we will do our best to provide what are
16 your requests in 83 through 98, 10.14. You will have
17 observed that while he addressed these questions to
18 Panel 3, we referred him to Panel 10 where they can be
19 better dealt with. They now bear the numbers 10.14.83
20 through 98.

21 So that while we are going to do our best
22 to provide him with the level of detail required -- and
23 just as an example, if you look at those questions,
24 10.14.83 is, please provide all available documentation
25 including reports, internal memoranda, or other

1 information regarding the consistent energy set run
2 referenced as 90 2S.

3 Now 90 2S is the foundation for the
4 update in avoided cost and it is dealt with in Exhibit
5 85 as well. And I certainly do not undertake to
6 produce all reports, internal memoranda or other
7 information. We will locate the memoranda which we
8 believe initiated that special run, the S stands for
9 "Special".

10 Then the next question asks for
11 information from three other CES runs and any
12 subsequent CES run. He may turn out to be dissatisfied
13 with the answer to that.

14 But, in any event, the warning I wish to
15 give my friend and the Board is -- and then he gets
16 down in 87 to the LMSTM model, and we are talking about
17 quite complex matters. There are two different
18 computer models and indeed CES, as I understand it, is
19 not one model at all but an agglomeration of different
20 models.

21 The panel in Panel 3 will be able to
22 speak to general principles and methodology and
23 understand the system to a limited extent, but they are
24 not -- they do not have the technical knowledge to go
25 into the level of detail suggested by these

1 interrogatories.

2 Now, what I put this morning on the
3 record that if my friend insists on delving into the
4 interstices of the consistent energy set, he is going
5 to be met with a lot of "I don't knows."

6 If this Board then decides that the level
7 of detail is necessary for an understanding of the
8 effect of this methodology, we will have to provide
9 another panel of technicians who can explain to that
10 level of detail.

11 I don't know want it to be understood
12 that by conceding that I'll give this information as
13 quickly as I can, that Panel 3 will be in the position
14 to answer the questions which he or his experts may
15 dream up.

16 That brings me to the other point in
17 issue, and that is the request for accounting
18 information. Now, my friend, in addressing you, has
19 talked about a accountants' working papers. Now, of
20 course, that is not what the interrogatories ask for at
21 all.

22 The first one asks for working papers
23 prepared by Hydro's auditors relative to the operation
24 and/or audit of Hydro's annual financial statements for
25 its fiscal years 1987 through 1990.

1 The second one includes a request for all
2 reports, letters, memoranda or other materials prepared
3 by Ontario Hydro or its accountants/auditors, dealing
4 with the appropriateness of particular current
5 accounting, auditing or financial statement
6 presentation choices including, without limiting the
7 generality of the full run, all such materials with
8 respect to... And then he goes from A through Z and AA
9 to NN.

10 We cannot possibly undertake to do that
11 kind of review in any feasible time limit. We cannot
12 undertake to produce the auditors' working papers
13 because they belong to the auditors.

14 Perhaps more important, the
15 appropriateness of the accounting people, the financial
16 statements of Ontario Hydro are reviewed annually by
17 the Ontario Energy Board and indeed are currently being
18 reviewed in hearings before that Board.

19 Certainly there is no witness on Panel 3
20 who is knowledgeable enough to respond in detail to all
21 of those items of accounting appropriateness. The
22 comptroller of the planning branch will be there and
23 will talk to accounting costs in a general way, but I
24 would point out to the Board that annually at the
25 Ontario Energy Board this kind of request is made. The

1 Ontario Energy Board has never required the production
2 of the auditors' working papers on the basis that the
3 auditors certify the accounts and it can be assumed
4 that the accounting treatment is approved of by the
5 auditors.

6 There are literally hundreds of answers
7 on the public record, under the headings which are set
8 out here, in interrogatories by the Ontario Energy
9 Board and by other parties before the Board, and I have
10 a list of them which has been prepared. They cover
11 such items as, for example, one for the 1991 case which
12 was heard last year in 1990 was: List all major
13 accounting and depreciation policy changes during the
14 1980s.

15 I am quite prepared to make this list
16 available to my friend with the hundreds of
17 interrogatories. It might take us some time to find
18 them. But I am not prepared to undertake to produce a
19 witness on Panel 3 who can speak to them in that kind
20 of detail. Those are on the public record.

21 In my submission, to look into the
22 appropriate accounting treatment in the number of
23 accounts, some 40 accounts which my friend has listed,
24 will get us into a level of detail that is totally
25 inappropriate.

1 The accounting policies are stated in the
2 financial statements which have been provided in answer
3 to another interrogatory. They have been approved
4 obviously by Ontario Hydro's auditors. They have been
5 approved by the Ontario Energy Board over the years.

6 In my submission, the whole topic is
7 totally inappropriate in a proceeding before this
8 Board. It will, by its very nature, involve a further
9 topic which is already dealt with by another tribunal.

10 Those are my submissions.

11 THE CHAIRMAN: I guess that what Mr.
12 Shepherd is concerned about in general terms are two
13 things: one, what is the methodology that Hydro uses
14 when it is negotiating a NUG contract in setting itself
15 up to be able to be in a position to do that? And two,
16 where there are accounting judgments to be made, are
17 they made with a bias in favour of one type of
18 generation over another type of generation? I guess
19 the dilemma is that both those concerns may require a
20 level of detail that would be quite extensive.

21 MR. HOWARD: I can certainly --

22 THE CHAIRMAN: Yet, that doesn't detract
23 perhaps from the legitimacy of the concerns, and so the
24 conundrum is how do you resolve that in the context of
25 this hearing?

...

1 [11:11 a.m.] MR. HOWARD: Well, what we have done, as
2 you will see, is refer this to Panel 11, which is the
3 wrap-up panel.

4 Now, there is no witness on Panel 3 who
5 can deal with --

6 THE CHAIRMAN: Just to interrupt for a
7 moment, that may solve IT for the moment, but it does
8 not solve it in the long term. What are we going to do
9 when we come up against it in Panel 11?

10 MR. HOWARD: Well, I was going to suggest
11 that the comptroller of the planning branch will be on
12 Panel 3 and will talk about accounting costs and their
13 role in the development of avoided costs. And I think
14 that everybody will be in a lot better position then to
15 determine whether or not this issue need be pursued at
16 a later date.

17 There will also be, for each of the
18 options, detailed evidence by people familiar with the
19 method of costing of those options, for each of the
20 options considered in Panels 4 through 9.

21 My submission will be, when that is all
22 over, that this Board and my friend have all the detail
23 they need to have about whether or not there is a
24 general bias in the costing which is applied to
25 planning. If the Board then rules that that is not so,

1 then we have another panel.

2 But in the meantime, my friend can burrow
3 through the interrogatories -- well, he can start by
4 reading the Ontario Energy Board's annual report on
5 accounting policies, which he clearly must have paid
6 some attention to, because he says that is the source
7 of his questioning.

8 His concerns arise from the proceedings
9 last year before the Ontario Energy Board. He can
10 review the existing interrogatories and the existing
11 Board's decisions over the past three years to his
12 heart's content and ask the questions, and if the
13 people can't answer them, this Board can decide whether
14 they need be answered at some time during this
15 proceedings.

16 But at this stage in the proceedings, in
17 my submission, it is embarking on a whole new series
18 with nothing except my friend's allegation that he
19 thinks if he gets into it enough, he will find a bias
20 in favour of a particular kind of alternative. And in
21 my submission that is a classic fishing expedition and
22 not a genuine issue.

23 THE CHAIRMAN: I think it is a little bit
24 extreme to say it is a fishing expedition. This is an
25 issue that has been well identified and pursued various

1 times and places. Of course it is very difficult to
2 ascertain the evidence, and I guess that is one of the
3 problems.

4 MR. HOWARD: Well, obviously if the Board
5 thinks it is relevant, it will have to be done. But I
6 would submit that -- well, first of all, I would urge
7 upon the Board that the auditors' working papers are
8 off base.

9 Secondly, I would believe that my friend
10 should review the public record on accounting policies
11 and identify some among the 40 where he has concerns,
12 and we will give him copies of all the interrogatories
13 about accounting policies that have been provided to
14 the Ontario Energy Board in the last three years, and
15 then if he can get a little more specific and identify
16 something that would satisfy even a prima facie case of
17 bias, it seems to me that if an accounting
18 appropriateness included in it a bias, it would have
19 been detected long before now by the tribunal that is
20 set up to review the accounting principles.

21 THE CHAIRMAN: Perhaps not. Perhaps bias
22 is too strong, but policy or predisposition or
23 something of that sort might be what...

24 MR. HOWARD: Well, generally accepted
25 accounting practices, as I understand them, are

1 designed to preclude predispositions to results.
2 Perhaps I'm a little naive in these things, but I
3 thought that all financial statements were prepared on
4 the basis so as to reflect the operations. That is
5 what they say anyway.

6 THE CHAIRMAN: That is what they say.
7 Thank you, Mr. Howard.

8 Mr. Shepherd.

9 MR. SHEPHERD: Mr. Chairman, prior to
10 doing this, in fact as well as doing this, for ten
11 years I was a tax lawyer, and one of the pleasant
12 functions that tax lawyers have is that they get to sit
13 each year with their clients and with their auditors
14 and talk about all the various judgments that will go
15 into the financial statements and what the financial
16 statements are going to look like after each individual
17 judgment.

18 My submission is that you can take
19 judicial notice of the fact that those judgments aren't
20 always simply look in the book and see what it tells
21 you to do. I don't think that is, in fact, how
22 auditors do it, and I think that if Mr. Howard believes
23 that, he is incorrect.

24 THE CHAIRMAN: But, Mr. Howard's point is
25 if they are the independent outside auditors, you can't

1 get those papers anyway. They are not available to
2 Hydro and aren't available to you.

3 MR. SHEPHERD: Well, in my experience
4 that is not true. In my experience if the client says
5 to the auditor, "Please let so and so look at your
6 working papers," the auditor will say yes, sir. Now I
7 may be mistaken here. It may be that Hydro's auditors
8 will say, "No, Hydro, we don't care that you are a good
9 client, we are not going to let anybody see them." But
10 I doubt that very much.

11 THE CHAIRMAN: But the auditors are not
12 acting for the Hydro management. Aren't they acting
13 for the owner, that is the Government of Ontario?

14 MR. SHEPHERD: Technically the auditors
15 act for the shareholders. In practice I have never
16 seen a circumstance -- except where there were problems
17 with management, I have never seen a circumstance where
18 the auditors didn't take some care to be guided by what
19 management had to say to them, if I can put it as
20 delicately as that.

21 In fact, I have seen many situations
22 where management tells the auditors what the statement
23 should say and what decisions should be made.

24 Actually, I should point out, by the way,
25 Mr. Chairman, that Mr. Howard's distinction between

1 auditors and accountants is actually a good one,
2 because, in fact, auditors don't make any of the
3 judgments. They aren't allowed to. Their job is to
4 check the judgments of management.

5 Now the reality is that it is a
6 discussion back and forth; how should this be
7 presented, what decision should be made here. But the
8 actual relationship is management prepares statements,
9 it makes all the judgments, the auditors then check and
10 decide whether they are satisfied with them. That is
11 the legal relationship.

12 I should also, I guess, point out that
13 Mr. Howard has said the policies are stated in the
14 financial statements. That is not the policies I am
15 after. I think that is fairly straightforward. The
16 policies I am after and the decisions I am after are
17 much finer than that.

18 Mr. Howard has referred me to the Ontario
19 Energy Board filings, and indeed I'm very interested in
20 the list that he's providing us. However, I have read
21 the Ontario Energy Board materials for the last -- well
22 at least since HR 16, which is the last five years, and
23 it was not until last fall that I found myself shocked
24 by some accounting judgments. Most of the stuff at the
25 Ontario Energy Board is - how should I describe it - it

1 doesn't go into a lot of detail on the specific
2 judgments that have been made.

3 Now, I agree with Mr. Howard that I could
4 simply ask the witnesses on this panel to talk about
5 all these things, and I could say, "Okay, let's talk
6 about how you capitalize interest and how you do it for
7 the various reasons within the organization, and how it
8 affects avoided cost," and I could spend three hours
9 asking questions about that, most of which would have
10 no point, because since I wouldn't know the answer, I'd
11 simply be working towards seeing whether there was a
12 smoking gun in there somewhere.

13 But, it seems to me that it makes a lot
14 more sense, since I know there are certain things in
15 there, that is already on the record at the Ontario
16 energy board, to say, "Let's us take a look," and then
17 we will only hone in on the things that are there. Why
18 should we talk at length in this cross-examination
19 about things where ultimately there is an explanation
20 that is right in the working papers? It seems to be a
21 waste of everybody's time.

22 With respect to 3.14.34, I will just make
23 one comment. Mr. Howard has advised us that the
24 illustrative example or examples are already provided.
25 It is our belief that the illustrative example is not

1 representative of how Ontario Hydro actually does
2 avoided cost calculations.

3 If Mr. Howard is prepared to say on the
4 record, or his witnesses are prepared to say on the
5 record, that those illustrative examples are
6 representative, fairly representative of how they
7 actually do avoided cost calculations, I am fully
8 prepared to accept that and to use those illustrative
9 examples.

10 THE CHAIRMAN: Well, that seems like a
11 good start to the cross-examination.

12 MR. SHEPHERD: That is correct.

13 THE CHAIRMAN: If they...

14 MR. HOWARD: If the answer to that is no,
15 then we go back to the drawing board.

16 MR. SHEPHERD: See, Mr. Chairman, I
17 suspect that what the answer will be is, individual
18 examples cannot be representative because they are all
19 so different. I suppose at that point I can say, well,
20 then give us some actual examples, and maybe we should
21 take this interrogatory as fair warning of that
22 question. Maybe that is the easiest way to deal with
23 it.

24 I come back to the same point, however,
25 which I think is critical. How can you talk about

1 avoided cost if you don't know how they actually do it?
2 It seems fairly straightforward to me.

3 And finally, Mr. Howard has referred
4 to...

5 THE CHAIRMAN: Well, I'm at a bit of a
6 disadvantage. I haven't looked at the illustrative
7 examples, but if there are illustrative examples, and
8 they do demonstrate the methodology, that should be
9 enough for this panel. I recognize that when you get
10 into later panels, there may be refinements on that,
11 but that is really what this panel is concerned with,
12 principles and judgments and methodology.

13 MR. SHEPHERD: That is right. So, if the
14 illustrative examples are truly representative, I have
15 no problem.

16 THE CHAIRMAN: I wouldn't have thought
17 that they would have put it in, and as such if it
18 wasn't, that may not cover everything and there may be
19 other scenarios that you could present to them and ask
20 them how would they deal with that.

21 MR. SHEPHERD: If that is acceptable to
22 Mr. Howard, I'm happy with that. I think it extends
23 our cross-examination a little bit in terms of time.
24 It would be easier if we had the stuff in advance and
25 could say, "All right, it is all right."

1 THE CHAIRMAN: Well, it is awfully
2 difficult to balance what we need as a panel on these
3 three major parts of this particular panel, and not
4 getting enmeshed in a level of detail that isn't
5 helpful to anybody, or disclosing information which, in
6 interest to the party, shouldn't be disclosed.

7 MR. SHEPHERD: I understand.

8 THE CHAIRMAN: Those are very difficult
9 areas to try and reconcile.

10 MR. SHEPHERD: I appreciate the difficult
11 In fact, in the case of the accountant's working
12 papers, just to go back to that for one second, that
13 difficulty is very real there. In essence what we have
14 asked for is give us a pile of paper that is about
15 eight feet thick.

16 All we really want is to have our experts
17 go in and look at the accountants' working papers and
18 say to the auditors, "Please give us copies of these 25
19 pages." That is all we have really wanted from the
20 outset. That's all we ever really asked for. We
21 thought that was the most efficient way of dealing with
22 it.

23 Anyway, the last point I would make is
24 with respect to the CES questions. Mr. Howard has, I
25 think, correctly expressed our agreement that they will

1 make their best efforts to provide us with the
2 information, and we understand that that creates some
3 difficulties.

4 I would advise you, however, in light of
5 his comment about their allocation to Panel 10, the CES
6 is only ever once referred to in any of the exhibits
7 before this Board. Only once, and that is with respect
8 to avoided costs.

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1 [11:25 a.m.] Therefore, the suggestion that it should
2 have been allocated to Panel 10 and we incorrectly
3 allocated it to Panel 3, which we did, seems to me to
4 be fairly surprising. Those are my submissions, unless
5 you have questions.

6 DR. CONNELL: Mr. Shepherd, with respect
7 to the accountant's working papers, you said two
8 different things. At the conclusion of your opening
9 presentation you said that what you would present to
10 the panel would be a random sample. What you have said
11 just in the last few minutes suggests to me that you
12 mean it would be a non-random sample. Can I clarify
13 this?

14 Let me just press you a little bit.

15 MR. SHEPHERD: Okay.

16 DR. CONNELL: If we are talking about a
17 random sample, let me just conjecture that something
18 like one per cent of that entire family of accountant's
19 papers might serve your purpose and ours, and that you
20 might, instead of asking for the entire population and
21 then making your own random selection, you might begin
22 by selecting randomly among the accounts, and
23 requesting just one per cent of all those that might
24 exist, and that you might base your case then on an
25 examination of the one per cent.

1 Is that a feasible approach? -

2 MR. SHEPHERD: Well, I guess there are
3 two answers to that.

4 First of all, it's not like there is a
5 single list somewhere of all the various accounting
6 judgments that has a thousand on it and you can simply
7 go down and say, do a random sort, take 100 of them or
8 50 of them.

9 DR. CONNELL: I understand you have
10 enumerated some 40 accounts. Could you make a
11 selection amongst those 40, for example, could you
12 select two or three out of the 40 and perhaps some sub
13 population of those?

14 MR. SHEPHERD: No. I think if you were
15 going to do it at random you would do all 40 accounts
16 and choose at random the judgments within each one,
17 otherwise it wouldn't be a fair population sample, I
18 don't think.

19 The second points is, I think my choice
20 of the words "random sample" is probably not suitable
21 since it's not intention to be random. It is my
22 intention to say, out of the however many accounting
23 judgments there are, here are the ones that we believe
24 exhibit a bias, and as you will see, all of the biases
25 are in favour of central generation. And, of course,

1 my friend will have the opportunity, if he wishes, to
2 come back and say, well, here is a bunch more with bias
3 and they are bias the other way, if he chooses.

4 The best way to make our point, I think,
5 and to make it clear to the Board and understandable,
6 is to demonstrate that where there is bias it is in one
7 direction.

8 I don't have any intention of going
9 through the areas where they make what are basically
10 sterile judgments that have no impact on final costing,
11 which is probably 99 per cent of them.

12 So, I think my suggestion random samples
13 is inappropriate wording.

14 THE CHAIRMAN: Thank you, Mr. Shepherd.

15 MR. D. POCH: Mr. Chairman, just before
16 discussion on that point closes, it may be of some
17 assistance to know that my client has taken the
18 position in its discussions with government that there
19 is a structural problem here where you have got
20 proposed non-utility generators negotiating effectively
21 blind with a monopsony, an effective monopsony.

22 It was certainly our intention at some
23 point to raise this as an issue which this Board may
24 wish to comment on, and perhaps suggest or, by way of
25 condition, impose reforms which would alleviate this

1 concern that Hydro can secretly - and I am not
2 suggesting maliciously - but nevertheless secretly
3 settle a price it's prepared to pay for a proposed NUG
4 and there is no way to expose that to the light of day
5 at present.

6 It may be that we can sit down as counsel
7 and discuss, when we resolve that issue, but absent an
8 interim decision by you, this is a chicken and egg
9 problem.

10 In any event, I just felt it was
11 appropriate to mention that we were going to be raising
12 that at some point, just in light of this very kind of
13 problem which we always run into.

14 THE CHAIRMAN: All right. Thank you.

15 We will take our morning break now and
16 when we return we will I hope - but not necessarily
17 will - deal with this issue, and then continue with the
18 Panel 2 cross-examinations. First up this morning is
19 Ms. Kleer. Are you the first one?

20 MS. KLEER: No, I am not here for Panel 2
21 cross-examination.

22 MS. MARLATT: Perhaps I can be of
23 assistance.

24 THE CHAIRMAN: Yes.

25 MS. MARLATT: I believe on Wednesday when

1 we left off on Panel 2, I said that I would speak with
2 Northwatch's counsel and with NAN and Treaty #3's
3 counsel, Mr. Castrilli. Mr. Castrilli will be here at
4 2:30, ready for cross-examination.

5 Both Northwatch and OMAA are here now
6 and my understanding is either of them could begin
7 cross-examination this morning.

8 MR. KELSEY: I will speak to that.

9 MS. MARLATT: And Northwatch can speak to
10 that later.

11 I believe I told Ms. Morrison that I
12 would be unavailable this afternoon for
13 cross-examination, but I will be here on Wednesday, and
14 I regret any inconvenience to the Board but I will of
15 course be ready on Wednesday to cross-examination since
16 it will appears we will be going on to Wednesday.

17 Does that help at all? Northwatch, I
18 believe, can speak to their availability.

19 THE CHAIRMAN: Mr. Kelsey?

20 MR. KELSEY: Yes. First of all, I would
21 like to to apologize for not being here in my due
22 order. I have been involved, I think, as you know in
23 the City of Windsor, in the County of Essex, almost
24 continuously in negotiating school accommodation issues
25 between the public board and the Ministry of Education

1 and the Separate Board, and there are only two lawyers
2 in the province who do that, so there is nobody else
3 that would have done it, so there is no way that I
4 could have been here when I supposed to be. But I do
5 apologize. It was certainly intended no disrespect or
6 lack of concern for this Board.

7 I am scheduled to go back to Windsor for
8 what I sincerely and dearly hope is the last time to
9 close the Essex chapter this afternoon.

10 My preference would be, if that is
11 acceptable to the Board, as cross-examination is
12 continuing on Wednesday, and there was, I think, some
13 suggestion that because I missed my turn I could go to
14 the bottom of the list, and I would be quite content,
15 and, in fact, would prefer if that were possible, to be
16 towards the bottom of the list. Even, and I have
17 spoken to government counsel, Ms. Couban, even, if
18 necessary, after the government, but certainly towards
19 the bottom. But if she wishes to go last, I can go
20 last but one.

21 If that could be accommodated, I would be
22 sincerely grateful.

23 THE CHAIRMAN: Well, Ms. Marlatt, you are
24 here this morning though, are you?

25 MS. MARLATT: Yes, I have to leave in the

1 near future though, but counsel for OMAA has told me
2 that she is ready to go after the break.

3 THE CHAIRMAN: All right.

4 We will adjourn for fifteen minutes.

5 THE REGISTRAR: This hearing will take a
6 fifteen minutes recess.

7
8 ---Recess at 11:30 a.m.

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1 ---On resuming at 12:01 p.m.

2 THE REGISTRAR: Please come to order.

3 This hearing is again in session. Please be seated.

4 THE CHAIRMAN: Panel 3 will be dealing
5 with costing concepts and avoided costs. In general,
6 the evidence on that panel will be concerned with
7 principles, judgments and methodologies that go into
8 planning.

9 The motion arises out of a concern by
10 IPPSO that, among other things, in the costing by
11 Ontario Hydro there is a predisposition towards a
12 certain type of generation.

13 The requests that have been made that
14 remain in dispute between IPPSO and the proponent raise
15 two general issues: one, the sensitivity of
16 confidential business information; and second, the
17 level of detail which would be required to comply with
18 the request of IPPSO.

19 The concern, as we understand it as
20 expressed by Mr. Shepherd, we consider to be one that
21 the Board will have to consider, but we do feel that at
22 this point that the proponent has provided sufficient
23 information to enable IPPSO to prepare for its
24 cross-examination.

25 If, in the course of that

1 cross-examination, it becomes apparent that further
2 detail is required in order to deal with Panel 3
3 issues, then the Board retains the discretion to
4 require further information to be provided and an
5 opportunity for supplementary cross-examination if that
6 becomes necessary. So, at this point we would make no
7 further order with respect to the IPPSO
8 interrogatories.

9 And we can now proceed to dealing with
10 the Panel 2 cross-examination.

11 Ms. Couban.

12 MS. COUBAN: Thank you, Mr. Chairman.

13 If I could very briefly address the
14 Board. In keeping with my undertaking to the Board and
15 to the parties in my opening statement that I advise
16 you when a policy or legislative changes have taken
17 effect by the provincial government, I would like to
18 advise the Board that on June 5th of 1991, the
19 Honourable Jenny Carter introduced certain amendments
20 to the Power Corporations Act.

21 I have distributed to the clerk and to my
22 friends copies of Ms. Carter's statement to the
23 Legislature on that day, which I would suggest could be
24 entered as an exhibit. That statement explain the
25 changes that are contemplated.

1 principles, methodology and judgment that goes into
2 costing concepts dealt with at Panel 3 level simply
3 because it makes it easier for us to then go ahead and
4 consider the later matters.

5 But, having said that, it may be that
6 there are matters which if, as and when they arise, it
7 will seem to be more appropriate to be dealt with
8 elsewhere.

9 MR. SHEPHERD: The second matter is an
10 illustrative one. This is relating to Panel 2 you will
11 be pleased to know. Ontario Hydro has requested that
12 we amend our Exhibit 159. You will recall that Exhibit
13 159 was an excerpt from the Bruce "B" operating licence
14 and an excerpt from the operating procedures associated
15 with Bruce "B", in both cases dealing with the 1 per
16 cent question.

17 Ontario Hydro has requested that we amend
18 it to file the whole Bruce "B" operating licence, not
19 just that excerpt. I should tell you that we only had
20 that excerpt. That was what was provided to us by the
21 AECEB.

22 I haven't read this whole thing, but I
23 have had pointed out to me by Ontario Hydro the
24 provision that they want to make sure is in, and that
25 is Provision A.A.7 of the licence.

1 THE CHAIRMAN: 8.8, did you say?

2 MR. SHEPHERD: A, as in Adam, point A
3 point 7. So, I have copies of this which have been
4 graciously provided to me by Mrs. Formusa which I would
5 like to make an addendum to that exhibit.

6 THE CHAIRMAN: It should be incorporated
7 then into Exhibit 159; that's probably the best way of
8 doing that.

9 MR. SHEPHERD: That's right.

10 Thank you, Mr. Chairman.

11 THE CHAIRMAN: Now, we perhaps should
12 just recapitulate for a moment the program for the
13 completion of Panel 2. OMAA will be first. OMAA's
14 counsel is here. Yes.

15 And do you have any idea how long you
16 might be?

17 MS. OMATSU: I expect no more than half
18 an hour.

19 THE CHAIRMAN: Pardon?

20 MS. OMATSU: I expect no more than half
21 an hour, sir.

22 THE CHAIRMAN: All right. Thank you.

23 And then it looks as if the next will be
24 Mrs. Mackesy; is that correct?

25 MRS. MACKESY: That's right.

1 THE CHAIRMAN: Are you ready to proceed?

2 MRS. MACKESY: Yes.

3 THE CHAIRMAN: And how long do you expect
4 to be.

5 MRS. MACKESY: I am not sure. It might
6 be a couple of hours.

7 THE CHAIRMAN: That's what you said
8 before so you are being consistent in that respect.

9 Mr. Hunter, Mr. Trivett, are you here?

10 MR. TRIVETT: Yes, we are ready.

11 THE CHAIRMAN: How long do you expect to
12 be.

13 MR. TRIVETT: From half a day to a day
14 and a half.

15 THE CHAIRMAN: Well --

16 MR. TRIVETT: Depends on how many you
17 wish to defer to other panels.

18 THE CHAIRMAN: We will have to see how
19 that goes. All right.

20 Mr. Castrilli will be on following OMAA I
21 guess. Would that be right? He is not here right now.

22 MS. MORRISON: He will be here this
23 afternoon.

24 MRS. FORMUSA: Yes, he expected to be
25 here at two-thirty.

1 THE CHAIRMAN: And then that leaves Ms.
2 Marlatt who will be on on Wednesday; Mr. Kelsey from
3 Northwatch on Wednesday; Ms. Couban, you are prepared
4 to give up your position to both those if you have to;
5 is that right?

6 MS. COUBAN: Yes, I am.

7 THE CHAIRMAN: How long do you expect to
8 be.

9 MS. COUBAN: About an hour.

10 THE CHAIRMAN: Thank you.

11 Now is there anybody else?

12 MR. KELSEY: I just did want to say, if I
13 might, that when I spoke this morning I did know that
14 there were counsel available to cross-examine to fill
15 up the rest of the day; if I had known otherwise, I
16 would not have asked to be put over to Wednesday; I
17 would have been ready to proceed today.

18 THE CHAIRMAN: But you are okay for
19 Wednesday?

20 MR. KELSEY: Absolutely.

21 THE CHAIRMAN: That's fine then.

22 Ms. Omatsu.

23 RONALD TABOREK,
24 DAVID BARRIE,
JOHN KENNETH SNELSON,
25 JUDITH RYAN; Resumed.

1 MS. OMATSU: Thank you.

2 THE CHAIRMAN: Ms. Omatsu.

3 MS. OMATSU: Good morning. My name is
4 Omatsu. I represent OMAA, the Ontario Metis and
5 Aboriginal Association.

6 I have given to the clerk an exhibit with
7 materials that I will be referring to. I trust they
8 have been distributed:

9 THE CHAIRMAN: This will be 171, is that
10 right, am I right?

11 THE REGISTRAR: It would be 171, yes.

12 THE CHAIRMAN: Thank you.

13 ---EXHIBIT NO. 171: Materials Ms. Omatsu of OMAA will
14 be referring to in cross-
15 examination of Panel 2
witnesses.

16 MS. OMATSU: Mr. Chairman, several months
17 ago OMAA submitted its statement of concerns and they
18 were on three matters. The first was environmental and
19 they have been put over to subsequent panels; and
20 another was reserve margin. Our concern was that it
21 was too high and I believe that matter has been
22 canvassed by other counsel, leaving us with our third
23 concern which had to do with the matter of costs in
24 terms of inconsistencies that appear to us on the face.

25 I primarily want to deal with one of

1 those and with something that came up in examination in
2 chief: The concept of total customer cost. I will not
3 be dealing with it in the kind of depth I assume will
4 be done in Panel 3.

5 I would like to direct my questions in
6 that regard to Mr. Taborek.

7 CROSS-EXAMINATION BY MS. OMATSU:

8 Q. Mr. Taborek, on page 2816 of Volume
9 16, in reference to total customer cost you said:

10 "And you will note, as was made
11 earlier, we do not attempt to provide a
12 perfect system. What we attempt to
13 provide is a system that gives minimum
14 total customer cost."

15 And I assume from your statement that
16 this concept of total customer cost is considered by
17 Hydro to be part of its mandate to deliver electricity
18 at the minimum total customer cost.

19 MR. TABOREK: A. No, precisely not. Our
20 mandate is to deliver reliable electricity at least
21 long-term cost and in a manner acceptable to the people
22 of Ontario. That is how I interpret our mandate.

23 And that when we ask the question of what
24 is reliable, we use as one of our reliability criteria,
25 the concept of minimum total customer cost.

1 Q. What I was interested in was your
2 explanation of how you arrived at this total customer
3 cost and that's pages 2 and 3 of the materials that I
4 provided. Basically, your explanation in chief how
5 that was brought about. I had several questions
6 regarding the formulation that I would appreciate you
7 explaining to me.

8 On page 2808 of Volume 16, you were
9 talking about unsupplied energy and how that was then
10 converted to unsupplied system-minutes, to
11 system-minutes, and then at the bottom of the page, you
12 were saying then you add demand and supply measures to
13 the system. Turning over the page to 2809, the cost of
14 these additions and the cost of operating the system
15 and so we compute the cost of supply.

16 Then you went on to explain how we get
17 the customer interruption cost. From what I understand
18 from your explanation, the total customer cost was the
19 sum of these figures.

20 A. The computed unsupplied energy times
21 the interruption cost, yes.

22 Q. I wonder if you could explain to me
23 when you were saying you take the unsupplied
24 system-minutes, was that the figure that went from 25
25 to 10?

...

1 [12:17 p.m.] A. Yes, our criteria, we are saying that
2 the minimum total customer costs, as we compute them,
3 now occur at 10 system-minutes rather than 25
4 system-minutes of unsupplied energy.

5 Q. Right. Then you have some figure for
6 demand supply measures?

7 A. Yes.

8 Q. And some figure for the cost of
9 operations, which give you the cost of supply.

10 A. Yes.

11 Q. Then you add them to - and you called
12 it system-minutes - was that to be distinguished from
13 unsupplied system-minutes?

14 A. No, I believe it would be the same.

15 Q. So that, you said, you take the
16 system-minutes and you multiply them by the customer
17 interruption costs.

18 A. Yes.

19 Q. Was that the \$5.91 per kilowatthour
20 you spoke of before?

21 A. Yes.

22 Q. So, in a sense it would be, this 10
23 system-minutes times the \$5.91 would give you the
24 customer interruption costs? Is that correct?

25 A. Well, the ten, we normally do that

1 over a range of values of system-minutes. At the
2 minimum, that is the number that would be appropriate.

3 Q. I see. And...

4 MR. SNELSON: A. I think we have to be
5 careful here. The 10 system-minutes is the total
6 unsupplied energy. The \$5.91 applies to the part of
7 the unsupplied energy that would be represented by
8 rotating load cuts, which is a smaller part than the
9 full 10.

10 Q. I see. And some of these figures are
11 how one would calculate and understand total customer
12 cost?

13 MR. TABOREK: A. Yes. This was an
14 attempt to describe the use of this concept in
15 determining our reliability criteria.

16 Q. I wonder if you would please put on
17 the overhead, No. 28? Thank you.

18 A. This is exhibit 136, page 28?

19 Q. Yes. When you were discussing in
20 your testimony about how Hydro verified whether its
21 reserve margin was correct, just to recapitulate, you
22 mentioned that you did a survey of other utilities, you
23 reviewed Hydro's own recent operating experiences, and
24 the third thing that you mentioned, at page 2825 was,
25 in the middle of the page:

1 "Then finally we redid our analysis,
2 the approach suggested to you of
3 determining where the minimum total
4 customer cost occurred."

5 So, I suppose it would be fair to say
6 that this formula, total customer cost, is used by
7 Hydro to verify whether or not its reserve margin is
8 accurate or correct?

9 A. Yes, it is one of the tools we use.

10 Q. I know other counsel have dealt with
11 that concept of unsupplied system-minutes, and I would
12 like to ask you to explain something that did not
13 appear clear to me.

14 When the system-minutes went from 25
15 unsupplied system-minutes of energy across the system
16 in a year, from 25 to 10 minutes, is that not an
17 indication that the system is more reliable?

18 A. The total experience, the total
19 amount of unsupplied energy that is costed and counted
20 will be less. So, to sort of simplify and clarify,
21 hopefully, the discussion, if we consider the cuts that
22 are made to people, the rotating load cuts, which is
23 the ultimate step we take, in which we both count and
24 put a cost on, that is essentially going to be very
25 close to being the same under both of these, in the

1 previous calculation and now. They are all of the
2 order of one or less than one system-minutes. It is a
3 very small amount.

4 The other major factor that I will bring
5 into account is that of public appeals. Previously...

6 Q. I wanted to ask you a question about
7 that actually. But I didn't mean to interrupt you,
8 sorry.

9 A. Previously, we had thought that there
10 was a larger amount of public appeals available,
11 something like ten per cent, and now we have revised
12 ourselves to two per cent. As a result, there will be
13 fewer public appeals, if you will. It is that which
14 takes us to the 10 system-minutes as opposed to the 25.

15 Q. That's what I found somewhat
16 difficult to understand. It seemed to me that if you
17 could rely on the public less, namely from ten down to
18 two, that seemed to me that would indicate that there
19 should be more demand, and therefore, in a sense, the
20 system was more unreliable.

21 Therefore, I found it difficult to
22 understand how the number of unsupplied system-minutes
23 went down, and I thought perhaps the answer was that
24 you had increased the reserve margin, but you said in
25 your testimony that that was not the case. So, I

1 wonder if you could explain to me why that is?

2 A. In my mind, it is due to the amount
3 that you cost, keeping you at a very small number of
4 system-minutes. And that the amount that you count but
5 don't cost in the one case would take you from 1
6 system-minute to 25, and in the other case take you
7 from 1 system-minute to 10. So the 10 per cent would
8 take you to 25, and the two per cent would take you to
9 10. But in each case you have held yourself at one or
10 two system-minutes of load cuts; a very small amount of
11 load cuts.

12 Q. I am sorry?

13 A. A very small amount of load cuts.

14 THE CHAIRMAN: In the 10 to 25 criteria,
15 the 10 to 25 period is when you start calculating
16 costs, is that right? You used to not calculate costs
17 until you got to 25, and after that you didn't.

18 MR. TABOREK: No, costs have always been
19 rotating load cuts. We counted but did not cost the
20 public appeals.

21 THE CHAIRMAN: All right.

22 MS. PATTERSON: But did you just say that
23 the 25 unsupplied system-minutes, which are now 10, are
24 those that you don't count a cost for?

25 MR. TABOREK: That is correct. Well, let

1 me...

2 MR. SNELSON: Another way of looking at
3 this is that if you kept everything the same, in terms
4 of other modelling parameters on the system and so on,
5 and you just reduced your amount of public appeals that
6 you said you'd rely on, so you make one change, then if
7 you had kept your reserve margin the same, then you
8 would get a lot more system-minutes of unsupplied
9 energy due to rotating load cuts, because they would be
10 a lot more frequent.

11 To restore the amount of rotating load
12 cuts that really count to the same level, you would
13 have to increase your reserve margin by approximately
14 the difference in public appeals that you were relying
15 upon.

16 So, to return to the same amount of
17 rotating load cuts, you would probably have had to
18 increase your reserve margin by the difference between
19 2 per cent and 10 per cent, say 8 per cent, if there
20 was nothing else that changed. In doing so you would
21 end up with a smaller number of total system-minutes of
22 unsupplied energy from both categories, but the same
23 amount from rotating load cuts.

24 MR. TABOREK: We also mentioned a second
25 factor that did that restoring, mainly that the forced

1 outage rates that we are utilizing now are less than
2 they were in the 1981 calculations.

3 --THE CHAIRMAN: I guess I'm a little bit
4 confused, perhaps because I haven't thought about this
5 for a few days, but let's say everything else remains
6 the same, and you reduce 25 to 10. What affect does
7 that have on the reserve margin, for example?

8 MR. SNELSON: That would require an
9 increase in the reserve margin.

10 THE CHAIRMAN: Yes, all right. But as I
11 recall it, the combined effect of the reduction of 25
12 to 10 and the change in the public appeals resulted in
13 no change in the reserve margin, am I right?

14 MR. SNELSON: I think it was the combined
15 effect of the shift from 25 to 10, which was caused by
16 the change in the assumption of our public appeals and
17 a number of other changes, and Mr. Taborek has referred
18 to lower forced outage rates.

19 We are also working with shorter lead
20 times than we were in 1981. So, a number of other
21 changes have also taken place. So, it is a variety of
22 factors that have caused to offset.

23 MS. OMATSU: Q. Mr. Taborek, you said at
24 page 20 -- I seem to have this kind of sound. I don't
25 know if it is because I'm too close?

1 You did say at page 2827 that when you
2 went from 25 to 10 system-minutes, reserve margin was
3 not affected. I wonder if the reduction from 25 to 10
4 affected the total customer cost?

5 MR. TABOREK: A. Simply no, because that
6 portion of the total customer cost curve is very flat,
7 and so there would not be a significant change.

8 Q. If you look behind you at that
9 overhead, it appears to me that unsupplied
10 system-minutes would figure in two of the boxes, of the
11 boxes that go into the total customer cost. And just
12 using a reasonable man accounting, if a figure goes
13 from 25 to 10 in two of those four calculations, that
14 is more than 50 per cent, I would assume that at the
15 end of the day, at the final box there should be a
16 difference. Would you mind explaining to me why there
17 is no difference?

18 A. Essentially the unsupplied
19 system-minutes that are costed are the load cuts, and
20 the amount of unsupplied system-minutes and load cuts
21 is not large, in either of the cases the 25 or the 10.
22 I have said they are small or about one.

23 The other number that would be the change
24 would be the cost of supply, and because of the fact
25 that the forced outage rates of the units being looked

1 at now are better, you do not need as much of them
2 simply to provide the degree of supply you wish, and so
3 that doesn't change. And then summing those two up is
4 the statement that the minimum on the curve is very
5 flat over quite a range. So that there is not a
6 significant change in total customer cost.

7 I believe page 29 came next which maybe
8 showed, schematically, the flat bottom on the curve.

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1 [12:30 p.m.] Q. Page 1 of the Exhibit 171, is a
2 compilation of three definitions of total customer cost
3 that I came across in your materials. I wondered if
4 you could explain the first one to me.

5 You define it as all the costs of
6 providing a customer's electricity needs, including
7 artificial lighting, home heating, then the costs of
8 producing, transmitting and distributing the
9 electricity, and the costs incurred by the end-user in
10 obtaining the required service, e.g., wiring,
11 insulation, and appliances.

12 A. The concept of total customer costs
13 is used in many areas of engineering in designing the
14 power system. I have used it in the context of
15 reliability. These appear to be with respect to demand
16 management and I will refer those to Mr. Snelson.

17 Q. I wonder, Mr. Snelson, the last line,
18 e.g, wiring, insulation and appliances, did you include
19 the cost of appliances to the residential user only or
20 does it also include the industrial and commercial
21 user?

22 MR. SNELSON: A. This is a concept we
23 will be talking about in detail in Panel 3.

24 Q. Yes, I realize that.

25 A. The concept is that if one is

1 evaluating the cost of providing an electricity
2 service, such as light or cold food from a refrigerator
3 or motive power to drive a motor in an industrial
4 establishment, then what has to be minimized is the
5 cost of all of the things that are required to deliver
6 that final service, and some of those things are on our
7 side of the meter, on the utility's side of the meter,
8 and they are usually costed in utilities studies. Some
9 of the things are on the other side of the meter and
10 they include all the equipment that is used to take the
11 electricity from the customer's meter to deliver the
12 final energy service. And including those costs in
13 evaluations is necessary to give reasonable evaluations
14 of demand management alternatives that primarily affect
15 the customer's equipment.

16 Q. So, Mr. Snelson, I assume that you
17 have said that it does include the appliances of
18 residential, plus industrial and commercial customers?

19 A. Yes. It tends to be looked at,
20 though, on an option specific basis. So, it tends,
21 when looking at the demand management option, when
22 looking at the economics of improving the efficiency of
23 household refrigerators, then it will only be household
24 refrigerator costs that are costed. When you are
25 looking at the improvement of industrial motors, it

1 will only be industrial motor costs that are costed.

2 Q. Well, would you have have included
3 Dofasco's appliances as well?

4 A. If the demand management option being
5 evaluated was an improvement to Dofasco's equipment,
6 then the costs of their equipment will be costed.

7 This is really a Panel 3 discussion for
8 conceptual purposes, and a Panel 4 discussion for the
9 actual application to demand management options.

10 Q. Yes. Who makes all these decisions
11 whether or not you include my computer at the office
12 versus my computer at the home versus Dofasco's, what
13 have you?

14 A. Primarily customers make decisions
15 about their electricity utilization equipment. Demand
16 management is a way in which utilities may influence
17 those decisions.

18 Q. I am not sure you answered my
19 question. Are you telling me that I have advised you
20 whether or not to include the cost of my computer in --

21 A. I'm sorry, I thought you were asking
22 about who makes the decision to buy a computer or what
23 sort of computer to buy.

24 Q. No, no. I am not asking that. I'm
25 sorry.

1 I was asking you, how is it decided
2 whether or not Dofasco's equipment will come into the
3 calculation of total customer cost?

4 A. The principle of going to total
5 customer costs was discussed extensively through the
6 preparation of the demand/supply planning strategy,
7 which was subject to extensive public communication
8 programs and public consultation programs, and it did
9 end up with a hearing in front of the Select Committee
10 of the Legislature at which this concept was discussed
11 and this method of costing demand management options
12 was discussed, and that was before Ontario Hydro made
13 the decision to publish the demand/supply planning
14 strategy including this concept.

15 Q. So, in effect, wasn't it the decision
16 of that body who decided?

17 A. The demand/supply planning strategy
18 was a decision of Ontario Hydro based on extensive
19 consultation with the public and with legislators.

20 Q. I see. So, in a sense it is fair to
21 say that it is Ontario Hydro who makes these decisions
22 on a case-by-case decision?

23 A. I have told you about the decision in
24 terms of principle.

25 On a case-by-case basis then that's just

1 the application of that principle. That in examining
2 the economics of a demand management option, we will
3 look at the overall economics including customers'
4 costs and utility's costs.

5 Q. I wonder if we could go to the third
6 definition, and just the first sentence. The total
7 customer cost concept is used to evaluate demand
8 management options.

9 I understand how this formula is used for
10 purpose. What I did not understand, however, was the
11 definition above that definition, I call it B, the last
12 two lines where you say that this total customer cost
13 has the effect of reducing demand by some estimated
14 amount.

15 I can see how the formula can be used to
16 evaluate demand management. I wonder if you could
17 explain to me how this formula has the effect of
18 reducing the demand?

19 A. I would just like to read the context
20 of that just so that I am clear as to how it's being
21 used in that context.

22 I'm sorry, this is the overview document?

23 Q. I believe so, yes.

24 A. Do you happen to have the exhibit No.
25 of that?

1 THE CHAIRMAN: I think it is 5, but I am
2 not sure.

3 MR. SNELSON: Now I've found it. It is
4 in a discussion of the concept of avoided cost.

5 I believe that the English here is a
6 little strange, and I am just trying, in reading this
7 sentence, to see what "which" refers to. I can make
8 more sense of the sentence if "which" refers to the
9 program than to the total customer cost.

10 MS. OMATSU: Q. I see. So you are
11 saying that --

12 MR. SNELSON: A. It is the program which
13 has the effect of reducing demand rather than total
14 customer cost test. Though the total customer cost
15 test would be used for evaluating programs which can
16 reduce demand.

17 Q. Okay, fine. So, then that would make
18 it consistent with your sub subsequent definition?

19 A. Yes.

20 Q. That basically you use this concept
21 of total customer cost to evaluate demand management
22 options and also to evaluate your reserve margin?

23 A. Yes.

24 MR. TABOREK: A. Different things are
25 included in the totals in each case. So, for instance,

1 what Mr. Snelson was describing as contained within the
2 total customer costs for a demand management program
3 are not necessarily those things which are in the total
4 customer cost for the reliability assessment we are
5 doing.

6 Q. Oh, I see. So your formula, the
7 concept would change?

8 A. Yes. We, for instance, would not put
9 in customer appliances in this particular definition.

10 In particular, the sort of clearest,
11 simplest description of the costs that lead up to the
12 decision on the reserve margin is in the discussion of
13 Figure 5.1 where we have said there are many constant
14 elements in the power system and that the ultimate
15 decision to be made is a decision as to whether we
16 should put in a CTU or the customer should suffer
17 unsupplied energy. And it is those two elements that
18 are traded off in 5.1, and it is those elements that
19 are causing the changes in the information shown on
20 page 29.

21 Q. Mr. Taborek, you mentioned that most
22 utilities do not use the concept of total customer cost
23 and actually that most use LOLP; is that correct?

24 A. Yes. And some, even simpler, just
25 work with a reserve margin or some other deterministic

1 criteria.

2 Q. So, the standard used by most
3 utilities would be this one day in ten years of
4 unsupplied minutes, system-minutes?

5 A. Yes, one in ten.

6 Q. I understand there is one other
7 utility in North America who uses this total customer
8 cost in terms of its reserve margin; is that also your
9 understanding?

10 A. There may well be more than one. I
11 believe we have listed those who use expected
12 unsupplied energy. I don't believe we listed those who
13 use total customer cost.

14 I notice in our Table 3.2 on page 32, of
15 Exhibit 87, we list Electricite de France as doing a
16 balancing of generation of customer costs. I don't see
17 any other listed there.

18 Q. I was advised - I'm sorry, I don't
19 recall the exact name of the utility - Pacific
20 Northwest in the United States uses this concept as
21 well.

22 A. Perhaps the Northwest Power Planning
23 Council that plans for a number of utilities in the
24 northwestern United States.

25 Q. Would you say that Ontario Hydro, in

1 terms of using this concept of total customer cost, is
2 on the leading edge of formulation? Because I
3 understand in your previous testimony, actually Ontario
4 Hydro used to use LOLP and then subsequently abandoned
5 it.

6 Is it simply a question that other
7 utilities will adopt this formulation or...?

8 A. No, not necessarily. I think Hydro
9 can take some claim. The technique, I believe, was
10 utilized first in Europe. I think we could probably be
11 among the first to use it in North America.

12 Other utilities, there is a considerable
13 debate as to whether utilities should move towards it,
14 and many people advocate it and others resist. The
15 primary rational for resisting is discomfort with
16 quantifying the numbers, in that they describe all of
17 the issues. And it has pros and cons.

18 All methods used sensibly will give you a
19 sensible answer. It just happens to be a technique
20 that's more analytical than most.

21 Q. Yes, you did say on page 2812 that
22 most utilities do not use the concept of minimum total
23 customer costs because they are uncomfortable with
24 defining what customer cost is--

25 A. Yes.

1 Q. --and in translating unsupplied
2 energy to customer cost.

3 But is it your belief that this
4 discomfort level is simply because it's a new
5 formulation?

6 A. No. No, it's been around for ten
7 years or more.

8 They feel in their circumstances that
9 they are better suited with their methods, on balance,
10 as we feel we are with ours.

11 MR. SNELSON: A. Ontario Hydro was
12 encouraged in this line of development by a report from
13 a Select Committee on Energy from the mid-1970s.

14 If my memory serves me correctly, it was
15 about a 1976 report of the Select Committee on Energy,
16 which encouraged Ontario Hydro to look for reliability
17 criterion that took into account the frequency,
18 duration and magnitude of actual outages to customers,
19 as opposed to loss of load probability.

20 I believe that the Coalition of
21 Environmental Groups, in their exhibit they submitted
22 for our cross-examination, actually had copies of the
23 relevant part of that report as part of their exhibit..
24

25 ...

1 [12:52 p.m.] MR. TABOREK: A. The motivation,
2 basically, was to give to decision-makers and customers
3 the clearest information possible on the impact of a
4 certain level of reliability on them.

5 So, for instance, Table 5.2 of Exhibit
6 140 is an example of attempting to communicate the
7 impact of different levels or the reliability levels
8 chosen to customers.

9 Q. Thank you. I just have one other
10 question and that had to do with something that I filed
11 in the statement of concerns, which is in the package I
12 gave you. I guess it is page 7. It is in the middle
13 of the page, the paragraph beginning:

14 "Ontario Hydro expects that the
15 economic lifetime of its fossil and
16 nuclear stations will be 40 years.
17 Sensitivity studies have indicated that
18 customer cost does not change markedly
19 with shorter or longer lifetime."

20 I suppose that my concern reflects the
21 concern that I had throughout the discussion about
22 costing, that nothing appeared to really affect
23 anything, putting it very simply. You said a reserve
24 margin of 20 to 24 really did not affect customer costs
25 markedly.

1 Here, having a fossil or a nuclear unit's
2 lifetime being on one side of 40 did not appear to
3 affect the total customer cost either. I wonder if you
4 could please explain to me why that is.

5 A. Well, I think first a general comment
6 and then a specific one.

7 In general, I think one attempts to
8 design systems so that they operate under those
9 circumstances. If the system were designed in such a
10 fashion that drastic changes in the behaviour of the
11 system resulted as a result of a very small change in
12 one of the forecasts, that in principle would be very
13 undesirable. Engineers are continuing, planners are
14 continually looking for areas in which sharp changes
15 occur and they attempt to stay away from them making,
16 in effect, stable systems.

17 One example we gave you was in looking
18 for a reliability criterion we looked for a region in
19 which things were relatively stable and you look for
20 stable minimums or stable maximums depending on what
21 you are doing.

22 Having said that and turning to the
23 question of age, if you take, for instance, a
24 generating station with a 40-year life and you say,
25 "Well, what happens if the life is 41 years or 39

1 years?" you are looking at a change in 1 in 40, 2-1/2
2 per cent. And that is the change in the capital -- you
3 would write-off your capital over a time 2.5 per cent
4 longer or shorter. And what you usually find is that
5 there will be other offsetting factors, that if you
6 wanted to get another few years of life you would have
7 to spend more on maintenance, so these things do tend
8 to offset.

9 I would suggest that it's because of
10 circumstances like that, that when you design a
11 generating station you design for a 40-year life;
12 whereas, if you design for an automobile you may design
13 for a 5- or 10-year life. It is to in effect put
14 yourself into a position where those kinds of
15 uncertainties would not have extremely powerful effects
16 on your system.

17 Q. Well, I believe you testified that
18 you changed the lifetime from 30 to 40 years.

19 A. Yes.

20 Q. Did that make any change? I mean, I
21 can see perhaps one year, but did ten years make a
22 difference?

23 A. Well, the larger the difference, the
24 more of a change there would be.

25 In that instance, though, it was a

1 slightly different motivation having designed a plant.
2 We found having designed it, that its performance or
3 its lifetime would be better than we anticipated.
4 Under those circumstances, you have an obligation to
5 present and future customers to make sure they pay
6 appropriate to the benefits received from this station.

7 So, what we did was extend the life to 40
8 and in that manner the customers using it in the 30- to
9 40-year period will also pay for it, not just the
10 customers using it during the period up to 30 years.

11 In each case, I think, the stations would
12 have been designed originally for the longest practical
13 life. When we started, we thought the longest
14 practical life was 30; when we got some experience we
15 found the longest practical life was 40, if you are
16 simplifying the language of it.

17 Q. And a difference of ten years would
18 have affected--

19 A. Oh, yes.

20 Q. --the total customer costs?

21 A. Yes.

22 Q. And what was referred to in this
23 statement was simply a much shorter time frame?

24 A. Well, I think one other thing I would
25 say is that when we do our assessments of future

1 generation, we also do sensitivity studies. So,
2 typically, if we were to choose a life of 30 or 40 or
3 50, whatever life we would choose, we would test the
4 sensitivity of our decision to the life being more or
5 less. Typically, you would test it about the chance of
6 being ten years more or less for stations of this age.

7 Q. So, when you changed it from 30 to 40
8 years, we would see a change actually in your figures
9 and in your formulations to reflect that change, that
10 now the units can last 25 per cent longer?

11 A. Yes. So, for instance, when the
12 initial assessments, and I am going back in history, I
13 think in the 70s when the assessments were made of the
14 economics of nuclear generation, they would have used
15 the 30-year life, and I presume they would have used
16 sensitivities about the 30-year life.

17 When we did the analyses in the 80s, say,
18 we would have used a 40-year life and sensitivities
19 about that life. Similarly, as we are doing it today,
20 we will have a life and sensitivities about the lives.

21 MS. OMATSU: Thank you very much.

22 THE CHAIRMAN: Mr. Castrilli, you will be
23 next. What is your estimated time?

24 MR. CASTRILLI: Mr. Chairman, less than
25 an hour, perhaps as little as a half hour.

1 THE CHAIRMAN: Thank you. We will start
2 at two-thirty.

3 THE REGISTRAR: This hearing will adjourn
4 until two-thirty.

5 ---Luncheon recess at 1:00 p.m.

6 ---On resuming at 2:35 p.m.

7 THE REGISTRAR: Order. This hearing is
8 again in session. Please be seated.

9 THE CHAIRMAN: Mr. Castrilli.

10 MR. CASTRILLI: Thank you, Mr. Chairman.

11 CROSS-EXAMINATION BY MR. CASTRILLI:

12 Q. Panel, could I initially ask you to
13 turn to Exhibit 3, the Demand/Supply Plan. We are
14 looking at page 4-10. The left-hand column, the first
15 full paragraph on that page, is the paragraph that
16 begins:

17 "Hydraulic generation is constrained
18 by a number of environmental
19 considerations including navigation,
20 flood and erosion control, recreation and
21 fish management. Hydro operates its
22 hydraulic stations within these
23 constraints and undertakes mitigating
24 measures such as the construction of fish
25 ladders where required."

1 Panel, we asked you an interrogatory with
2 respect to this particular paragraph and I believe it
3 is now Interrogatory 2.26.25.

4 This interrogatory was with respect to a
5 full list of mitigation measures regarding hydraulic
6 stations on the Moose River Basin, how they were
7 arrived at, and the consultation undertaken with
8 affected aboriginal communities with respect to the
9 mitigation measures developed for each station that you
10 would identify.

11 Your answer is recorded in this
12 particular interrogatory. Perhaps you can tell me
13 which member of the panel I should be directing my
14 questions to.

15 MR. BARRIE: A. If it is an issue of how
16 the plant is operated then it would be me. If it is an
17 issue on the general environmental issues, then perhaps
18 Ms. Ryan. But, if you ask the question, we will take
19 it from there.

20 Q. Let's proceed on that basis.

21 Ms. Ryan, let's assume this question is
22 properly directed to you. First of all, is the list of
23 mitigation measures reproduced on Interrogatory 2.26.25
24 a full list of mitigation measures regarding hydraulic
25 stations in the Moose River Basin?

1 MS. RYAN: A. My understanding is that
2 this list is with respect to how we operate the system.

3 Q. So that would be you, Mr. Barrie?

4 MR. BARRIE: A. This list is the
5 operating mitigating measures that we take; and to the
6 best of my knowledge, this is all of the operating
7 mitigating measures. So, this would not include
8 mitigating measures such as the construction of new
9 facilities. I think a mitigating measure that was
10 mentioned in Exhibit 3 were things like construction of
11 fish ladders, so I am not addressing that kind of
12 thing. Just how we operate the plant, that is what
13 these mitigating measures are.

14 Q. Well, is the reference to mitigating
15 measures in Exhibit 3, page 4-10, with respect to
16 environmental mitigation, Ms. Ryan?

17 MS. RYAN: A. What was your question
18 again, please?

19 Q. Is the reference to mitigation
20 measures found on page 4-10, the paragraph I just read
21 into the record a moment ago, with respect to
22 environmental mitigation measures?

23 A. It refers to the fact that we
24 undertake mitigating measures, such as the construction
25 of fish ladders, and it is on that page, yes.

1 Q. Is it a full list -- excuse me, is
2 the material that you provided in answer to
3 Interrogatory 2.26.25 a full list of environmental
4 mitigation measures with respect to existing hydraulic
5 development?

6 A. No, I wouldn't think so.

7 But the answer goes on to say that
8 additional information will be provided by Panel 6 and
9 that information is not attached. I don't have it
10 here, but I would assume that that would provide more
11 information.

12 Q. And can you confirm for me that no
13 aboriginal communities are identified in the
14 interrogatory response as having been consulted in
15 connection with the development of the mitigation
16 measures we see identified in interrogatory response
17 2.26.25?

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25 ...

1 [2:40 p.m.] A. For the answer provided, that is
2 correct. I would assume that it is what we have done
3 historically, and I think it is fair to say that a lot
4 of our interface with First Nation communities is more
5 recent and that is the type of thing that is ongoing
6 now.

7 Q. Now, you list certain mitigation
8 measures in this particular interrogatory. For
9 example, items 1 and 2 deal with controlled lake levels
10 for enhancing habitat for ducks or for fish spawning
11 purposes. Can you advise the Board what studies have
12 been done, or monitoring performed, by Ontario Hydro to
13 indicate that these measures have been successful at
14 these particular locations?

15 MR. SNELSON: A. I doubt that any one of
16 us would know the answer to that question. If anybody
17 does know the answer to that question, it would be
18 Panel 6.

19 Q. Panel 6?

20 THE CHAIRMAN: You are referring to
21 studies and monitoring done by Ontario Hydro, I take
22 it?

23 MR. CASTRILLI: Yes.

24 THE CHAIRMAN: Yes.

25 MR. SNELSON: But basically what Mr.

1 Barrie has testified to is the effect that these
2 constraints have on the operation of the power system
3 and the constraints are there for environmental or
4 other good citizenship reasons.

5 The next stage back as to whether or not
6 those measures have been effective in their objectives,
7 I don't think there is anybody other than Ms. Ryan who
8 has any qualifications in that particular area. I don't
9 think you have looked at it in detail. Would that be
10 fair?

11 MS. RYAN: That is fair. I know there
12 are studies ongoing looking at erosion and working with
13 people in the community and Ministry of Natural
14 Resources on erosion, and that there are a lot of
15 studies with respect to fish habitat ongoing, but I
16 don't know the ultimate results of those studies.

17 MR. CASTRILLI: Q. My understanding then
18 is that this information can be provided or will be
19 provided by Panel 6 as part of the response to this
20 interrogatory?

21 MS. RYAN: A. That is my understanding.

22 MR. CASTRILLI: Perhaps Ms. Formusa could
23 help.

24 MRS. FORMUSA: Perhaps I could help on
25 two fronts. On Panel 6, Mr. McCormick, who I have

1 - mentioned before, will be addressing aspects of both
2 the existing environment and future options with
3 respect to mitigation measures.

4 In addition, I know that on Panel 6 we
5 have answered quite a number of interrogatories with
6 respect to details of mitigation measures in past and
7 those proposed for the future, on consultations with
8 aboriginal communities, both past and future.

9 So, I know that we have gone through
10 quite a few interrogatories like that, and Panel 6 is
11 prepared to get into the details of those answers. So,
12 additional information has been provided, but not in
13 the context of Panel 2.

14 MR. CASTRILLI: Q. Returning to Exhibit
15 3, the paragraph I referred you to earlier at page
16 4-10, where you note that:

17 "Hydraulic generation is constrained
18 by a number of environmental
19 considerations."

20 We asked you in a further interrogatory.
21 That one would be Interrogatory 2.10.4, and this was
22 with respect to whether there was a full list of
23 environmental considerations. We have already gone
24 over that to some extent, in that you have indicated,
25 Ms. Ryan, I believe, that this material provided on

1 page 4-10 and also now the material you have discussed
2 in relation to Interrogatory 2.26.25 is not a full list
3 of environmental considerations, but I wanted to ask
4 you about other particular environmental constraints.
5 In your testimony in Volume 16 of the transcript, pages
6 2762 to 2763?

7 MS. RYAN: A. Yes.

8 Q. This is where you were discussing, in
9 your examination in chief the subjects of mercury in
10 reservoirs. Do you recall that testimony?

11 A. Yes, I do.

12 Q. Is increased concentrations of methyl
13 mercury in fish, both in reservoirs and downstream of
14 reservoirs, a further environmental constraint to
15 hydraulic development?

16 A. It is certainly a concern with the
17 development of hydraulic, and I guess it is a
18 constraint to the extent that there are studies
19 underway to better understand the extent of the problem
20 and what sort of mitigative measures might be taken.

21 Q. Now just looking at those two pages
22 you have in front you--

23 A. Yes.

24 Q. --lines 18 and 19, you state that:

25 "This is a concern to local residents

1 who may consume large quantities of the
2 fish."

3 Ms. Ryan, do you understand this to be a
4 problem for and a concern of aboriginal peoples and
5 communities in relation to hydraulic development in
6 Northern Ontario?

7 A. I understand it to be a concern, yes.

8 Q. In general, Ms. Ryan, I will keep
9 this general in light of the fact that this will be
10 dealt with in greater detail in Panel 6, would you
11 agree that mercury contamination from hydroelectric
12 projects poses a potentially significant adverse effect
13 on the natural environment?

14 A. I'm not sure that we have enough
15 information to define it as -- I guess significant. My
16 understanding is that with the development of a
17 hydraulic reservoir, there is the potential for
18 increase in mercury concentration in the fish.

19 I guess one of the difficulties in
20 putting the concern into perspective is that there is a
21 fairly large variation in natural background lakes,
22 which can span the concentrations found in some
23 reservoirs.

24 So, I think it is fair to say that it is
25 a concern which requires study and is being studied,

1 and there will be mitigative measures required. But
2 I'm not in a position to define whether or not it is
3 significant. It depends on your starting point and
4 where you fall with respect to the guideline per
5 consumption.

6 Q. Do you understand that one of the
7 concerns that aboriginal communities have, at least
8 those people within those communities who consume large
9 quantities of fish, is that if the fish is contaminated
10 with methyl mercury, they could suffer methyl mercury
11 poisoning?

12 A. Yes, if the levels would be high
13 enough.

14 Q. Ms. Ryan, to your knowledge, does
15 Ontario or the federal government have any regulations
16 establishing limits of mercury in water arising from
17 hydraulic development in reservoirs or downstream of
18 such plants?

19 A. I know there are studies underway to
20 look at levels and understand them better and determine
21 methods to prevent or at least limit the increase, but
22 I don't know of any laws preventing increase.

23 Q. I am sorry, I missed the last part of
24 your answer.

25 A. I don't know of any laws that limit

1 increase. I assume that that would be part of the
2 environmental assessment for any project would be to
3 study existing levels and predict what levels they
4 might rise to and approval would be on that basis.

5 Q. Your understanding then is that there
6 are no regulations of general application of the type I
7 just described?

8 A. For --

9 Q. Mercury in water.

10 A. I am sorry, was it for mercury in
11 water or increase in mercury in water?

12 Q. Mercury in water arising from
13 hydraulic development.

14 A. I know there are guidelines on
15 mercury levels in water, but I don't know any
16 specifically assigned to hydraulic projects.

17 Q. I wasn't referring to guidelines, I
18 was referring to regulations. To your knowledge?

19 A. Not to my knowledge.

20 Q. Ms. Ryan, let's continue with volume
21 16. In fact, we are still on the same page, 2762.

22 A. Yes.

23 Q. We are now at line 22. You state
24 there:

25 "In Ontario Hydro's existing

1 reservoirs, the concentrations of mercury
2 in fish appear to be within the range
3 normally found in natural water bodies."
4 And my question is, what is this
5 statement based on?

6 A. The statement is based on studies,
7 and a large amount of the data has been gathered by the
8 Ministry of the Environment on mercury levels in
9 Ontario Hydro reservoirs versus mercury levels in
10 natural bodies of water which are not part of reservoir
11 and are away from the sources of pollution, and I guess
12 my understanding is that within our reservoirs, the
13 mercury may be in a range -- the numbers I had seen
14 were up to seven micrograms of mercury per gram, and my
15 understanding of natural bodies is that it can vary
16 from on average .25 to .6. But that is an average, and
17 any given fish could be from .1 micrograms per gram to
18 3.0.

19 Really the difficulty is that there are a
20 number of causes of elevated mercury levels in water
21 bodies and in the fish within them, and since all of
22 Ontario Hydro's hydraulic projects and reservoirs are
23 quite old, we don't have information from before
24 flooding, and even we don't have information from
25 immediately after flooding, which is when the mercury

1 would rise the most and then decrease over time.

2 So, we are at a stage in our hydraulic
3 generation that our reservoirs are fairly old and the
4 values are not, in my understanding, significantly
5 different in the variation you would find in natural
6 water bodies.

7 But again, the people who have the most
8 information on this and will be on Panel 6 have more
9 specific information.

10 Q. I'm not going to dwell on this, but I
11 just wanted to confirm -- or perhaps actually not
12 confirm with you, ask you in addition to Exhibit 118,
13 which I believe has been filed for the purposes of
14 being dealt with later on in Panel 6, can you provide
15 this Board with a list of the studies you are referring
16 to, or that your statement just now is based upon? I'm
17 not sure what transcript undertaking we are up to.

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25 ...

1 [2:55 p.m.] A. I guess the specific information that
2 I was referring to is that found in the Little Jackfish
3 environmental assessment document.

4 Q. Do you rely on anything else for the
5 general statement that you made in Volume 16 or the
6 statements that you just made now?

7 A. Basically, what I was relying on was
8 the expertise of the people in Ontario Hydro who work
9 in that area and are doing the studies and have the
10 more detailed information.

11 MRS. FORMUSA: I just wanted to check
12 what Exhibit 118 was, and that's the report that we
13 filed with respect to mitigation and mercury effects.

14 MR. CASTRILLI: Yes.

15 MRS. FORMUSA: You wanted an undertaking
16 that we would provide the studies that were referenced
17 in that report?

18 MR. CASTRILLI: Actually, I haven't even
19 gone that far. I wanted to know, if Exhibit 118 is the
20 extent of what Ontario Hydro relies on, then I already
21 have everything Ontario Hydro relies upon. If there
22 are other studies that Ontario Hydro relies upon and
23 you are now telling me they are found in Exhibit 118,
24 then I have my list. If there is anything else that
25 Ontario Hydro relies upon that is not found in Exhibit

1 118, I would like to have the further list and the
2 further studies.

3 MRS. FORMUSA: Yes.

4 THE CHAIRMAN: That will be number?

5 MRS. FORMUSA: 142.64.

6 MR. CASTRILLI: Thank you.

7 ---UNDERTAKING NO. 142.64: Ontario Hydro undertakes to
8 provide a further list and further
9 studies relied upon by Ontario Hydro not
provided in Exhibit 118.

10 DR. CONNELL: Just to clarify for the
11 record, Ms. Ryan. The figures you quoted, were you
12 giving data for micrograms per gram of wet weight or
13 per gram of dry weight?

14 MS. RYAN: I believe it's wet weight but
15 I would have to check.

16 DR. CONNELL: Thank you.

17 MR. CASTRILLI: Q. Ms. Ryan, continuing
18 with you, and continuing with page 2762 of Volume 16,
19 we are now at lines 14 and 15. You state there:

20 "In some hydroelectric developments
21 outside Ontario, reservoir flooding has
22 resulted in increased concentrations of
23 methyl mercury in fish, both in the
24 reservoir and downstream of the
25 reservoir."

1 Can you simply advice the board, Ms.
2 Ryan, which hydroelectric developments outside of
3 Ontario are you referring to and which studies are you
4 referring to?

5 MS. RYAN: A. I was referring to
6 Manitoba Hydro and Hydro Quebec, and specifically I
7 believe the James Bay LG2 reservoir and Hydro Quebec.

8 Q. Could I ask you, not for the studies
9 in relation to those two hydroelectric projects, but
10 for a list of the studies that you say you rely upon
11 with respect to those two provinces, if they are not
12 otherwise contained in Exhibit 118?

13 A. The specific studies for Manitoba and
14 Hydro Quebec that would demonstrate -- okay. That sort
15 of information.

16 Q. I'm sorry?

17 MRS. FORMUSA: Let's make it specific.

18 MR. CASTRILLI: Q. What I am asking for
19 is an undertaking to provide a list of the additional
20 studies arising from work done with respect to Manitoba
21 Hydro's projects and Quebec Hydro's projects with
22 respect to mercury that you rely upon for the statement
23 that I just read into the record from your testimony in
24 Volume 16, and if those are not found in Exhibit 18, I
25 would like those further lists.

1 MS. RYAN: A. Okay.

2 MR. CASTRILLI: Transcript 142.65.

3 ---UNDERTAKING NO. 142.65: Ontario Hydro undertakes to
4 provide a list of the additional studies
5 arising from work done with respect to
6 Manitoba Hydro's projects and Quebec
Hydro's projects with respect to mercury
relating to page 2762, lines 14 and 15,
Volume 16.

7 MR. CASTRILLI: Q. Ms. Ryan, we are
8 moving on to page 2763, we are now at the top of the
9 page, where you indicate that Ontario Hydro is
10 participating in studies for future hydroelectric
11 developments.

12 Again, are the studies that you refer to
13 there the ones that are to be found in Exhibit 118?

14 MS. RYAN: A. I believe most of them are
15 referred to in 118, but I would have to check.

16 Q. Could I ask you to check, and if
17 there are any others that are not found or contained in
18 Exhibit 18, that you provide me with a further list and
19 the documents themselves when they are available?

20 A. Yes.

21 MR. CASTRILLI: Mr. Chairman, I guess
22 that would be transcript undertaking 142.66.

23 THE CHAIRMAN: What were those studies
24 again, just so I can make a note of them?

25 MR. CASTRILLI: Sorry. There is a

1 reference at the top of page 2763 in Volume 16 of the
2 transcripts, wherein Ms. Ryan indicates that Ontario
3 Hydro was participating in further studies with respect
4 to mercury and hydroelectric developments. I have
5 asked her to simply provide me with a list of the
6 further studies, if they are not otherwise contained in
7 Exhibit 118, and also to provide me with the studies
8 themselves when they become available. I believe
9 that's transcript undertaking 142.66.

10 THE CHAIRMAN: All right.

11 ---UNDERTAKING NO. 142.66: Ontario Hydro undertakes to
12 provide a list of the further studies, if
13 not otherwise contained in Exhibit 118,
14 and also to provide the studies
when they become available, in reference
to top of page 2763, Volume 16.

15 MR. CASTRILLI: Q. Ms. Ryan at the top
16 of page 2763 of Volume 16, we are at line 3, you
17 indicate that:

18 "Research programs have been initiated
19 to understand the cycle of mercury in
20 reservoirs, to predict mercury levels,
21 and to prevent or mitigate the build-up
22 of mercury in the future."

23 I believe you, somewhere during the
24 course of your testimony over the last month, referred
25 to the sum and substance of those studies generally,

1 but I am wondering if I could now ask you to provide us
2 with the terms of reference for those studies that you
3 refer to, or that are referred to on lines 3 through 6,
4 if I don't otherwise have them.

5 MRS. FORMUSA: They may have been
6 provided, it's ringing a vague bell. They may have
7 been provided in response to undertakings, and if
8 that's the case, we will say so in the transcript
9 undertaking and let you know which interrogatory.

10 MR. CASTRILLI: Should we make that
11 transcript undertaking 142.67?

12 ---UNDERTAKING NO. 142.67: Ontario Hydro undertakes to
13 provide the terms of information for
14 studies referred to at page 2763, lines 3
through 6, Volume 16.

15 MR. CASTRILLI: Q. Ms. Ryan, continuing
16 with page 2763 in lines 3 through 6, the research
17 program that you are referring to there, can you advise
18 the Board what the budget is for that mercury research
19 program?

20 MS. RYAN: A. No, I am sorry, I don't
21 have that.

22 Q. Is that something I could ask you to
23 provide by way of undertaking, and in addition an
24 indication over what period of time the research is to
25 be conducted and the corresponding budget for that

1 entire period?

2 A. Okay.

3 MR. CASTRILLI: Mr. Chairman, I believe
4 that is transcript undertaking 142.68.

5 ---UNDERTAKING NO. 142.68: Ontario Hydro undertakes to
6 provide what the budget is for the
7 mercury research, page 2763, lines 3
8 through 6, and over what period of time
the research is to be conducted and the
corresponding budget for the entire
period.

9 MR. CASTRILLI: Q. Ms. Ryan, could I ask
10 you to turn to page 2747 of Volume 16, and we are
11 looking at lines 12 through 16.

12 MS. RYAN: A. Yes.

13 Q. Do you have the reference?

14 You state at that page, in that
15 paragraph, with respect to the environmental audit
16 program, that the:

17 "...major operating parts of our
18 business have environmental audits
19 carried out on a regular basis to provide
20 senior management with feedback on how we
21 are doing. "

22 Ms. Ryan, can you advise the Board, has
23 Ontario Hydro ever completed an environmental audit on
24 the operation of existing hydraulic stations anywhere
25 in Ontario and, in particular, anywhere in the Moose

1 River Basin?

2 MS. RYAN: A. Not to my knowledge.

3 I think it is fair to point out that in
4 several parts of our business, the programs are just
5 getting underway now, so that doesn't surprise me. I
6 would expect to see them done in the future.

7 Q. Well, do you know of any in
8 particular that are ongoing in relation to existing
9 hydraulic stations anywhere in Ontario and in
10 particular the Moose River Basin?

11 A. No, I don't know that.

12 Q. Is that information that you might
13 comparatively easily be able to obtain by way of
14 inquiry, that might easily be dealt with by way of a
15 further transcript undertaking?

16 A. I could find out if it's on an
17 existing work program.

18 MR. CASTRILLI: Mr. Chairman, could we
19 make that transcript undertaking 142.69.

20 ---UNDERTAKING NO. 142.69: Ontario Hydro undertakes to
21 provide whether it has completed an
22 environmental audit on the operation of
23 existing hydraulic stations anywhere in
24 Ontario and, in particular, anywhere in
25 the Moose River Basin.

24 MR. CASTRILLI: Q. Ms. Ryan, could I
25 simply ask you, has Ontario Hydro ever completed an

1 environmental audit on the operation of existing
2 transmission lines in Ontario, anywhere in Ontario?

3 MS. RYAN: A. The short answer is no.
4 The audits carried out are more on operational
5 functions where there are staff carrying out business.

6 So, fossil stations, nuclear stations,
7 demand hydraulic stations, transformer stations are
8 more likely applications of the audits.

9 Q. And not transmission lines
10 themselves?

11 A. What aspect of the transmission line
12 operation specifically would you mean?

13 Q. Well, there are environmental effects
14 associated with transmission corridors, are there not,
15 the maintenance of transmission corridors?

16 A. Certainly the right-of-way management
17 aspects of transmission would be a candidate for
18 operational audit.

19 Q. Has there been one done in relation
20 to right-of-way management?

21 A. Not to my knowledge.

22 Q. I will ask you to turn to page 2748
23 of Volume 16. We were looking here at lines 15 to 22,
24 with respect to the issue of reporting environmental
25 performance, you state, in part 4:

1 "New facilities, over the last 10
2 years, each new generating facility has
3 had three years of pre-operational
4 environmental monitoring carried out and,
5 then, three years of post-operational
6 environmental monitoring carried out to
7 see that the assumptions made at the
8 design stage were, in fact, correct and
9 to look for any environmental
10 implications which were not expected and
11 to mitigate them."

12 Now, I understand from the testimony of
13 Mr. Taborek that the newest hydraulic unit is 14 years
14 old; is that correct?

15 A. Arnprior, yes.

16 Q. Arnprior, yes.

17 Does that mean, Ms. Ryan, that there have
18 been no pre and post-operational environmental
19 monitoring carried out at any hydraulic facility in
20 Ontario including those in the Moose River Basin?

21 A. As presented in this context, yes.

22 Q. Could you turn to page 2769, of
23 Volume 16? We are actually looking at the bottom of
24 that page, lines 24 and 25, and then at the top of page
25 2770, lines 1 to 5. And you state there, this is with

1 respect to right-of-way management:

2 "There are a number of aspects of our
3 existing operation that have caused
4 public concern. One is the potential
5 human health affects associated with
6 electric and magnetic fields. At
7 present, the consensus of the scientific
8 community is that health risk has not
9 been established. "

10 I will just stop there.

...

1 [3:10 p.m.] Ms. Ryan, are you a toxicologist?

2 A. No, I am not.

3 Q. Are you an epidemiologist?

4 A. No, I am not.

5 Q. Are you a medical doctor?

6 A. No, I am not.

7 Q. Are you an expert in risk assessment?

8 A. No.

9 Q. Can you advise the Board what your
10 statement is based upon?

11 A. My statement was based on the
12 position statement which is the Ontario Hydro corporate
13 position on electric and magnetic field effects and was
14 given simply to state what the corporate position was
15 and to indicate that further detail on what study we
16 are carrying out will, in fact, be addressed in Panel
17 7.

18 Q. Can I ask you, Ms. Ryan, if you could
19 provide this Board with a list of the studies that
20 Ontario Hydro relies upon for its position statement?

21 A. Yes. We answered an interrogatory on
22 that question and it is No. 2.6.27.

23 Q. Yes. I have that in front of me and
24 it raises the same question. I don't know what studies
25 this statement is based upon. So, I appreciate you

1 referring me to the interrogatory, but I am still left
2 with the same question.

3 Could we make that --

4 MRS. FORMUSA: I am not sure that -- I
5 don't have background in this area.

6 A number of studies that have been
7 undertaken in the field of electric magnetic field
8 strengths is quite extensive. I met with Panel 7 the
9 other day. We have been answering a number of
10 interrogatories with respect to those studies. There
11 are many, many studies which I suppose we could...

12 MS. CASTRILLI: I am not asking --

13 MRS. FORMUSA: I am just trying to figure
14 out the best way to deal with it because it is not just
15 those studies which support the position; it is a range
16 of studies. It is the studies that say one thing and
17 studies that say another, and it is looking at all the
18 studies and the consensus in the community and that's
19 why I hesitate. There are quite a number of...

20 THE CHAIRMAN: Well, the evidence of
21 Ontario Hydro is that at present the consensus of the
22 scientific community is that the health risk has not
23 been established. Now what is being asked is the
24 support for that statement.

25 MRS. FORMUSA: We can do that.

1 THE CHAIRMAN: Is that right, Mr.
2 Castrilli?

3 MR. CASTRILLI: Yes, I'm sorry, I
4 couldn't see you, Mr. Chairman.

5 THE CHAIRMAN: I can't see you either.

6 MR. CASTRILLI: Yes, what I was asking
7 for by way of undertaking was a list of those studies
8 that Ontario Hydro relies upon in support of that
9 position statement, and also the testimony of Ms. Ryan
10 in chief.

11 MRS. FORMUSA: Yes.

12 MS. PATTERSON: So you don't want any of
13 the studies that go the other way?

14 MR. CASTRILLI: Well, my next question
15 was with respect to that. (Laughter) But I hadn't
16 gotten there yet.

17 We can make that one transcript
18 undertaking, but let's first get a number for the
19 transcript undertaking.

20 THE CHAIRMAN: That will be 142.70; is
21 that right?

22 MR. CASTRILLI: Yes, I believe that's
23 right.

24 ---UNDERTAKING NO. 142.70: Ontario Hydro to provide a
25 list of those studies, for and
against, that it relies upon in

1 support of its position on electric
2 and magnetic field effects and also
3 the evidence in chief of Panel 2
4 witness Ms. Ryan.

5 MR. CASTRILLI: And Mrs. Formusa had
6 already indicated, had already guessed my next
7 question.

8 Q. There are studies to the contrary; is
9 that correct.

10 MS. RYAN: A. That's correct.

11 Q. Could you as part of transcript
12 undertaking 142.70 to provide us with a list of the
13 studies to the contrary?

14 A. Yes.

15 Q. Thank you.

16 MRS. FORMUSA: Again I have to stand up
17 and caution. Not everything is black and white. Some
18 studies --

19 MS. PATTERSON: So, he should ask for all
20 of the studies relating to...

21 MRS. FORMUSA: That is why I stood up in
22 the first place because when I look at developing the
23 consensus of the scientific community, a lot of studies
24 went into it and it wasn't "These line up in favour of
25 it and these don't." Some of them are... I will take
a look at it and try and provide a comprehensive list.

1 I just don't think that we should be
2 saying well, this one is in support and this one isn't.
3 It is very difficult to say. I can certainly tell you
4 which ones we relied upon, but to say that the rest are
5 all not supportive of that position, it is probably not
6 going to be that black and white.

7 There is currently a data base that we
8 maintain that you will hear about in Panel 7 of over,
9 at the last count, of over 3000 entries in this field,
10 and all of them pertain to the issue. They have all
11 been looked at in the literature reviews, and we will
12 make our best efforts to provide a list but I am not
13 going to say that one is going to be pro and one is
14 going to be con. They just don't divide up that
15 neatly.

16 THE CHAIRMAN: I guess it is the
17 documents that you collectively bring to a conclusion
18 that there is a consensus.

19 MRS. FORMUSA: That one I have less
20 trouble with. The ones that are contrary are not
21 always 100 per cent. I mean, to get into -- I don't
22 want to get into the issue, but they don't say
23 definitively yes, there is a problem. Yet some people
24 would read that study and say but yes they have shown
25 there is some kind of a linkage in this one area but

1 the general conclusion is that there is not a cause and
2 effect. So, some people might rely on that study as
3 being contrary to the corporate position whereas others
4 would say, but look at the general conclusion. And it
5 is not a black and white area.

6 Perhaps I can speak with Mr. Castrilli
7 about this as well afterwards and we can -- I will
8 certainly provide lists of studies. I just want to
9 make it clear that they are not black and white.

10 MR. CASTRILLI: I am content with that,
11 Mr. Chairman. I think the transcript undertaking
12 should stand as it is, but certainly I hear what Mrs.
13 Formusa is saying and at a minimum I want to know what
14 studies Ontario Hydro relies upon for the statements
15 that were made by Ms. Ryan.

16 MRS. FORMUSA: Yes.

17 MR. CASTRILLI: Thank you.

18 Q. Ms. Ryan, moving on to page 2744 of
19 Volume 16, and we are looking here at lines 4 through
20 7, where you state that the second Ontario Hydro
21 environmental criterion is to minimize our adverse
22 impact where there are no regulations. An example of
23 this would be our herbicide reduction program for
24 rights-of-way maintenance.

25 I would like to, in this regard, ask you

1 to refer to Exhibit 21, page 79.

2 THE CHAIRMAN: Did you say 71?

3 MR. CASTRILLI: Sorry, that was Exhibit
4 21 at page 79.

5 Q. Ms. Ryan, can you advise the Board,
6 in respect of the herbicide brush and weed control
7 programs of Ontario Hydro, are these programs applied
8 solely by way of ground application or also by aerial
9 application?

10 MS. RYAN: A. My understanding is that
11 it is ground application.

12 Q. I understand, Ms. Ryan, that among
13 the herbicides that Ontario Hydro uses for right-of-way
14 maintenance is the herbicide 24D?

15 A. Yes.

16 Q. Would that be the principal herbicide
17 used under this program for brush control?

18 A. I don't know if that is the principal
19 one.

20 Q. Could I ask for a transcript
21 undertaking to advise the Board of a -- perhaps it
22 might be easiest, Ms. Ryan, if we look at page 79.
23 There are approximately six herbicides identified and
24 maybe the easiest way for you to provide the
25 information to the Board would be to simply assign a

1 quantity for the latest year you have figures.

2 A. Actually we answered an interrogatory
3 on that. 2.17.19 is: Herbicides, what? How much?
4 And it may have the information you need. It provides
5 the costs. I thought it gave the amounts. I will have
6 to...

7 Q. Could we make that a transcript
8 undertaking then, 142.71.

9 ---UNDERTAKING NO. 142.71: Ontario Hydro to provide
10 the types and quantities of
11 herbicides it uses under its program
for brush control.

12 MR. CASTRILLI: Ms. Ryan, just looking at
13 page 79 of Exhibit 21, the State of the Environment
14 Report for 1989 states that the average annual use of
15 herbicides over the period 1985 to 1988 was 130,000
16 kilograms of active ingredient. And you were expecting
17 to achieve a 35 per cent reduction over five years and
18 that you achieved 39 per cent reduction in the first
19 year to an amount of 79,486 kilograms; is that right?

20 MS. RYAN: A. Yes, as stated in this
21 report.

22 Q. Now I just wanted to direct your
23 attention to the earlier State of the Environment
24 Report 1988, which is Exhibit 19, and we are looking at
25 page 72.

1 You indicate or I should say that the
2 State of the Environment Report for 1988, which is
3 Exhibit 19, indicates that the average annual herbicide
4 use over the period 1985 to 1988 was about 121,000
5 kilograms of active ingredient of herbicide. Can you
6 advise the Board which number is correct.

7 A. No, I will have to check that.

8 Q. Can we make that transcript
9 undertaking 142.72.

10 ---UNDERTAKING NO. 142.72: Ontario Hydro to provide
11 the correct figure for the average annual
12 herbicide use over the period 1985 to
13 1988.

14 MS. RYAN: My assumption is that the 1989
15 one is the correct number but I would have to verify
16 it.

17 MR. CASTRILLI: Q. All right, thank you.

18 Returning to Exhibit 21 and page 79, I
19 think I have already indicated that the document notes
20 that the average annual use of herbicides between the
21 years 1985 and 1988 was the figure of 130,000.

22 Can you advise the Board what the range
23 of herbicide quantities sprayed per year was during
24 this period? I guess you will have to do that once you
25 know which number is correct: the one from Exhibit 21
 or the one from Exhibit 19. ...

1 [3:26 p.m.] Can we make that a further transcript
2 undertaking?

3 A. So, you're asking for the specific
4 amounts in each of the years '85 through '88?

5 Q. I'd actually frame the question as
6 what was the high and the low?

7 A. Oh, what was the range.

8 Q. Sort of like what was the range. But
9 if it is just as easy to provide the quantities per
10 year between '85 and '88, that will do just as well.

11 MR. CASTRILLI: Sorry, I guess we have to
12 make that a transcript undertaking as well, don't we?
13 142.73.

14 ---UNDERTAKING NO. 142.73: Ontario Hydro undertakes to
15 provide the herbicide quantities
16 sprayed per year between 1985 and 1988.

17 MR. CASTRILLI: Q. Ms. Ryan, I was
18 interested in a comment on page 79 of Exhibit 21. It
19 is the second to last full paragraph on that page,
20 where it is noted that:

21 "Herbicide application can fluctuate
22 considerably from year to year depending
23 on weather conditions and work programs
24 requirements. Maintaining this level of
25 reduction in future years will depend on
these factors."

1 I wasn't quite clear what the author or
2 authors were trying to convey in that sentence. Is
3 there a commitment on behalf of Ontario Hydro to
4 maintaining, permanently, an approximate 35 per cent
5 reduction of herbicide use from the year 1985 to 1988
6 average level?

7 MS. RYAN: A. Yes.

8 Q. There is.

9 A. It is a five-year program, but I
10 guess the statement was made to explain that they had
11 reached 39 per cent in the first year, and it shouldn't
12 be expected that subsequent years were going to
13 continue to go down that dramatically. That there
14 would be a stabilization, and it might go up slightly,
15 but over the five-year period they do plan to attain
16 the 35 per cent reduction.

17 Q. Would that be 35 per cent reduction
18 per product currently used? Or which product will be
19 absorbing most of the reduction?

20 A. It is 35 per cent reduction of the
21 total active ingredient.

22 Q. Well, there are many active
23 ingredients listed on page 79. Which one, or is it
24 going to be a 35 per cent composite reduction for all
25 of the active ingredients used?

1 A. It will be a 35 per cent reduction
2 overall, but not necessarily for each specific
3 ingredient.

4 Q. Does Ontario Hydro know where the
5 bulk of the herbicide reduction that has occurred took
6 place, geographically speaking? If we divided the
7 province in half, Northern or Southern Ontario...

8 THE CHAIRMAN: You mean by that where has
9 it -- oh, I understand your question.

10 MR. CASTRILLI: Geographically.

11 THE CHAIRMAN: I understand your question
12 now.

13 MS. RYAN: Yes, it is -- the information
14 is documented based on area offices or regional use,
15 and so that information exists. I don't have it here.

16 MR. CASTRILLI: Q. So, you don't know
17 whether it has been predominantly Southern Ontario or
18 Northern Ontario?

19 MS. RYAN: A. No, I don't.

20 Q. I gather it is something you could
21 readily find out by inquiring?

22 A. Yes.

23 Q. Could we make that transcript
24 undertaking 142.74 then?

25 A. So, that is just Northern Ontario

1 versus Southern Ontario?

2 Q. Yes. And perhaps since Ontario Hydro
3 is organized by particular regions that may not
4 correspond to other entities of government, perhaps in
5 the answer you can identify for everyone what you mean
6 by Northern and Southern Ontario.

7 A. Yes.

8 ---UNDERTAKING NO. 142.74: Ontario Hydro undertakes to
9 provide information regarding where the
10 bulk of the herbicide reduction has
11 taken place concerning Northern
12 Ontario versus Southern Ontario, and to
13 identify what is meant by Northern and
14 Southern Ontario.

15 MR. CASTRILLI: Q. Ms. Ryan, I gather,
16 we talked about this just a moment ago, that the
17 reductions, the 35 per cent reductions expected have
18 been with respect to all of the active ingredients
19 sprayed. Would you be able to advise, by product, what
20 the reductions have been, if that information is
21 readily available?

22 MS. RYAN: A. If it is readily
23 available.

24 MR. CASTRILLI: Can we make that
25 transcript undertaking 142.75?

26 ---UNDERTAKING NO. 142.75: Ontario Hydro undertakes to
27 advise what the reductions have been by
28 product, if that information is readily
29 available.

1 MR. CASTRILLI: Q. Now, Ms. Ryan, I'd
2 like to refer you to page 74 of Exhibit 21. On this
3 page, the exhibit notes that:

4 "Ontario Hydro has managed the
5 right-of-way in Pukaskwa National Park by
6 manually cutting trees and brush and
7 restricting herbicide use to the
8 treatment of cut stumps."

9 Could you advise the Board, Ms. Ryan,
10 what herbicide is normally applied by Ontario Hydro to
11 cut stumps?

12 MS. RYAN: A. Just a moment.

13 I thought there was an interrogatory that
14 gave that information, but I don't have it right here.

15 MR. SNELSON: A. 2.6.10 apparently, and
16 our book starts at 2.7.

17 THE CHAIRMAN: 2.6.10, is that what you
18 said? 2.6.10?

19 MR. SNELSON: That is what we were
20 looking for.

21 MS. RYAN: I thought we had provided an
22 interrogatory on that information, but I can't find it
23 right at this moment.

24 MR. CASTRILLI: Q. If you don't have the
25 book here with you--

1 MS. RYAN: A. I don't have that
2 information here.

3 Q. --we can come back to that.

4 Does Ontario Hydro have a similar policy
5 in respect to right-of-way management areas on or near
6 first nation communities and lands?

7 A. Its policy would be consistent for
8 right-of-way management across the province.

9 Q. Well, Ms. Ryan, when I look at page
10 74 of Exhibit 21, I thought what I was looking at was
11 an example of a special treatment area, which is what
12 Puchasquaw National Park is being regarded as. So, are
13 you telling me that all First Nation communities and
14 lands are treated as special treatment areas in the
15 Province of Ontario, by Ontario Hydro?

16 A. No, I am not.

17 Q. So, I take it Ontario Hydro does not
18 have a policy similar to the one identified on page 74,
19 as it pertains to First Nation communities and lands?

20 THE CHAIRMAN: I'm sorry, I'm not quite
21 sure what policy you are referring to.

22 MR. CASTRILLI: I am sorry, Mr. Chairman.
23 Perhaps I'm -- let me restate...

24 THE CHAIRMAN: Part of the policy is
25 special treatment, isn't it?

1 MR. CASTRILLI: Right. The reference I'm
2 making is to the third paragraph on page 74, in which
3 Hydro identifies what it calls a special treatment area
4 for a portion of a transmission corridor that runs
5 through Pukaskwa National Park. In that area, Ontario
6 Hydro, in consideration of the concerns of Parks
7 Canada, manually cuts trees and stumps and restricts
8 its herbicide use to the treatment -- sorry, to the
9 treatment of cut stumps as opposed to ground
10 application spraying, I take it is the distinction.

11 What I was asking Ms. Ryan was, does
12 Ontario Hydro have a similar policy with respect to
13 right-of-way management with respect to First Nation
14 communities and lands?

15 THE CHAIRMAN: Is this relating to
16 herbicide use? Is that what you're talking about?

17 MR. CASTRILLI: Yes.

18 THE CHAIRMAN: All right.

19 MS. RYAN: My understanding is that they
20 are trying to minimize the use of herbicides,
21 especially in distribution right-of-way management.
22 But the answer to your question would be no.

23 MR. CASTRILLI: Q. The answer to my
24 question is no? Sorry, I couldn't hear the last part
25 of your answer.

1 MS. RYAN: A. To my knowledge the answer
2 to your question is no.

3 Q. Thank you.

4 Ms. Ryan, Exhibit 19 again, page 106. On
5 this page we have a listing of Ontario Hydro
6 environmental committees, among them about
7 three-quarters of the way down the page is the
8 Herbicide Reduction Initiative Committee. When I
9 looked at Exhibit 21 at page 94, which is the 1989
10 State of the Environment Report, the Herbicide
11 Reduction Initiative Committee is no longer listed.
12 Can you advise the Board, what has happened to the
13 committee? Has it been disbanded?

14 A. No, my understanding is that the
15 target for herbicide reduction has been established and
16 it would now be a line management function to ensure
17 that that happens and undertake studies to make it
18 happen.

19 Q. What studies?

20 A. There are studies ongoing to
21 determine the impact of the increased use of manual
22 methods for cutting and brush control, versus the use
23 of herbicide, and the impact on worker safety and
24 noise, that sort of thing. So, it is assessing the
25 results of reducing herbicide usage as a result of the

1 initiative.

2 Q. What is the time frame for the
3 release of those studies?

4 A. I don't know whether they are
5 specifically studies that will be documented or
6 reported, or ongoing work assessments that may not come
7 up with a final report that would be produced.

8 Q. Can I ask, if there is such a study,
9 or if there is such an effort that will result in a
10 study, that it be made available to these proceedings?

11 A. Okay.

12 MR. CASTRILLI: That would be transcript
13 undertaking 142.76.

14 ---UNDERTAKING NO. 142.76: Hydro undertakes to provide
15 the results of any studies ongoing to
16 determine the impact of the increased use
17 of manual methods for cutting and brush
control, versus the use of herbicide, and
the impact on worker safety and noise, if
such studies exist.

18 MR. CASTRILLI: Q. So, Ms. Ryan, if I
19 take your testimony correctly, what you are now saying,
20 or what you are saying is that the responsibility for
21 continued herbicide reduction has now shifted from a
22 committee, which was the driving force, I guess, at
23 least in 1988, or up to 1988, to the line managers of
24 Ontario Hydro, the individual line managers of Ontario
25 Hydro?

1 MS. RYAN: A. Yes. And there is a
2 vice-president responsible for all of the line managers
3 who have herbicide reductions programs, so it would
4 focus there for the corporate program.

5 Q. Ms. Ryan, I'd like to refer you to
6 another transcript volume, Volume 23. We are looking
7 on page 4046. This was a discussion, I believe you
8 were having, with Mr. Shepherd on June 3 respecting
9 reforestation and tree replanting as an item or as an
10 initiative that Ontario Hydro has undertaken pursuant
11 to an agreement with the Ministry of Natural Resources.

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1 Can you advise the Board, Ms. Ryan,
2 whether Ontario Hydro uses herbicides in conjunction
3 with the tree replanting program?

4 A. I don't know.

5 Q. Could I ask for an undertaking to
6 make the appropriate inquiries with respect to that?

7 A. Okay.

8 MR. CASTRILLI: I believe we are up to
9 transcript undertaking 142.77.

10 Perhaps in conjunction with that
11 transcript undertaking, Ms. Ryan, the question I wanted
12 to know is whether the quantity of herbicides that are
13 identified in Exhibit 79 would therefore be greater if
14 the herbicides associated with the tree replanting
15 program, in fact, is an additional use of herbicides by
16 Ontario Hydro.

17 THE CHAIRMAN: Perhaps I don't understand
18 the question. If you have to use it in this program,
19 it would be greater; wouldn't it?

20 MR. CASTRILLI: Well, I don't know what
21 the number on page 79, for example, of Exhibit 21
22 means. Whether it's meant to include the tree
23 replanting or not.

24 The fact that Ms. Ryan doesn't know,
25 doesn't indicate one way or the other whether that

1 number, in fact, includes a quantity associated with
2 tree replanting.

3 THE CHAIRMAN: So, you want any tree
4 replanting broken out; is that what you mean?

5 MR. CASTRILLI: Or just knowing what the
6 true quantity of herbicide use is in connection with
7 Ontario Hydro programs, whether it's right-of-way
8 management by itself or right-of-way management plus
9 tree replanting.

10 THE CHAIRMAN: Who does the tree
11 replanting, does Hydro do it or does the Ministry of
12 Natural Resources do it?

13 MS. RYAN: To a large extent Ontario
14 Hydro does it but there is an agreement with the
15 Ministry of Natural Resources to do some as well.

16 THE CHAIRMAN: So, they do some.

17 MS. RYAN: Yes.

18 THE CHAIRMAN: Do you want the herbicides
19 that they use, too?

20 MR. CASTRILLI: I think only if Ms. Ryan
21 is in a position through Ontario Hydro to acquire that
22 information, otherwise I am content with simply the
23 information arising from Ontario Hydro's additional use
24 of herbicides, if any. That is transcript undertaking
25 142.77.

1 ---UNDERTAKING NO. 142.77: Ontario Hydro undertakes to
2 provide whether the true quantity of
3 herbicides in connection with Ontario
4 Hydro programs, whether it's right-of-way
 management by itself or right-of-way
 management plus tree replanting.

5 MR. CASTRILLI: Q. Ms. Ryan, if you
6 know, does the agreement or the arrangement with the
7 Ministry of Natural Resources specifically request
8 Ontario Hydro not to use or to minimize herbicides in
9 protecting replanted trees?

10 MS. RYAN: A. That agreement has been
11 provided in Interrogatory 2.14.55, and I don't recall
12 that aspect but I could look it up.

13 I assume where it says silvaculture
14 prescriptions include species, planting density and
15 site preparation treatment for every planting site, and
16 that's what the Ministry of Natural Resources agrees to
17 provide to Ontario Hydro at no cost, so they are
18 providing treatment requirements.

19 Q. But that doesn't really answer the
20 question with respect to herbicides. The agreement
21 appears to be silent on the issue of herbicides; is
22 that a fair statement?

23 A. In quickly scanning it, that's my
24 observation.

25 THE CHAIRMAN: But the agreement is set

1 out in Interrogatory 2.14.55?

2 MS. RYAN: Yes, the entire agreement is
3 attached.

4 MR. CASTRILLI: That is fine.

5 THE CHAIRMAN: I guess it speaks for
6 itself.

7 MR. CASTRILLI: Q. If I could now ask
8 you to turn to page 4-5 of Exhibit 3. I am looking at
9 the middle column, lines 2 and 3, the DSP states:

10 "People's electricity needs are the
11 major factor determining the use of
12 Hydro's supply system."

13 We asked you a further interrogatory,
14 which is 2.26.18, and it's a comparatively short
15 question but it's a rather lengthy answer.

16 Do you have the interrogatory before you?

17 A. Yes, I do.

18 Q. The essence of the question we were
19 asking you was how are -- well, first let me summarize
20 the answer I think you gave.

21 You recorded a variety of factors which
22 determine the use of the supply system, you provided a
23 list really, and what we wanted to know was, how are
24 factors relating specifically to values and concerns of
25 First Nations that are affected by hydroelectric

1 developments considered and implemented by Ontario
2 Hydro in deciding how to use the supply system?

3 Is that too much of a mouthful? Do you
4 want me to break it down for you?

5 A. Sure.

6 Q. Well, let's take a look, for example,
7 Ms. Ryan, on about the middle of the interrogatory
8 answer where you state:

9 "For any hydraulic development, a
10 framework of hydraulic limits and
11 constraints is first defined."

12 Do you see that?

13 A. Yes.

14 Q. How is the framework of hydraulic
15 limits and constraints first defined for a
16 hydroelectric development? What is the process that
17 Ontario Hydro uses?

18 MR. SNELSON: A. I think we are in the
19 situation where, as I have said, Mr. Barrie can talk
20 about the constraints and how they affect the operation
21 of the system, and that the way in which the
22 environmental constraints have been determined is
23 something which Panel 6 could help you with more than
24 we can.

25 Q. So, this is a matter that can be

1 dealt with more thoroughly and completely through Panel
2 6?

3 A. Yes.

4 Q. All right. Let me just try one more
5 question to help me understand this interrogatory
6 response in the bridge period between now and the time
7 Panel 6 hits the stand.

8 The answer goes on to state that these
9 hydraulic limits address the needs of special interest
10 groups, and I will just stop there.

11 How is information about the needs of
12 First Nation communities collected by Ontario Hydro and
13 then introduced into the definition of limits and
14 constraints? What is the process by which that occurs?
15 Is that a Panel 6 question?

16 A. I believe so.

17 MR. CASTRILLI: Mr. Chairman, if I could
18 have one moment's indulgence, I may be done.

19 Q. Sorry. Perhaps, Mr. Barrie, I can
20 just ask a remaining question. If I could ask you to
21 return to Interrogatory 2.10.4. This is one we have
22 talked about already, briefly.

23 MR. BARRIE: A. Yes.

24 Q. In the second paragraph of the
25 response there is a reference to -- environmental

1 constraints are commonly negotiated with the Ministry
2 of Natural Resources and may result in clauses within a
3 licence of occupation. I presume this licence of
4 occupation is issued pursuant to either the Beds of
5 Navigatable Waters Act or the Public Lands Act, or do
6 you know? What is your understanding of what that's a
7 reference to?

8 A. My understanding of a licence of occupation
9 is just the right that is given to Ontario Hydro to
10 operate the particular facility.

11 I don't know what particular law it's
12 under.

13 Q. Are we sure that it's even
14 referencing a law, or is it perhaps a contractual
15 arrangement between Hydro and the Ministry of Natural
16 Resources?

17 A. Yes, it's essentially between
18 ourselves -- well, the Government of Ontario, if you
19 will.

20 Q. I am still not clear whether it's by
21 way of contract or whether it's pursuant to a law. And
22 perhaps I could simply ask you, if you can't clarify
23 that for me now, whether you could do so by way of
24 transcript undertaking.

25 A. I could, but Panel 6 could tell you a

1 lot better.

2 Q. Is that a matter that Panel 6 can
3 deal with?

4 A. In my view, yes.

5 Q. Let's leave it to them then.

6 The third paragraph in that
7 interrogatory, Mr. Barrie, there is a reference to
8 management of water levels as required for wild rice
9 beds, and there a reference to Caribou Falls, Northwest
10 Region.

11 My question is, is what is done at
12 Caribou Falls to protect wild rice beds typical of what
13 is done elsewhere in the province with respect to wild
14 rice? Is that a question better directed to Panel 6?

15 A. I can give you a general answer on
16 how we operate Caribou Falls and other stations.

17 Q. That would be helpful, if you could
18 do that.

19 A. Essentially what it involves is
20 keeping Caribou Falls and other generating stations
21 where the downstream, or, in fact, sometimes the
22 upstream as well, water level is critical to wild rice
23 cultivation, particularly the variation in level when
24 the rice is sensitive to variation in level. So we
25 will keep Caribou Falls at a much steadier output than

1 if the wild rice were not a consideration. So we
2 restrict the extent of the peak shaving that we carry
3 out there.

4 Q. And that's with respect to Caribou
5 Falls.

6 Will Panel 6 be able to advise with
7 respect to other parts of the province where wild rice
8 management may take place?

9 A. All the examples that I know are in
10 the Lake of the Woods area. I don't know of wild rice
11 anywhere else.

12 Q. So, Caribou Falls would be it?

13 A. No, there are other stations there as
14 well.

15 Q. Perhaps, Mr. Barrie, we can do this
16 by way of transcript undertaking to shorten this up,
17 could you simply provide a list of where else wild rice
18 is protected with respect to hydraulic development and
19 what is done to protect wild rice beds in addition to
20 what you have just described? Make that the next
21 transcript undertaking, which I think is --

22 A. Specifically talking the operation
23 rather than the development of any other hydraulic
24 plant? You are talking development there, I think.

25 Q. I'm sorry. I meant in relation to

1 existing facilities?

2 A. Yes, we can do it for existing
3 facilities.

4 Q. And I gather Panel 6 can do it with
5 respect to the future.

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1 [3:56 p.m.] MR. SNELSON: A. Yes.

2 Q. Just then with respect to your area
3 of concern as it relates to this panel, could I have an
4 undertaking to provide a list of where else wild rice
5 is protected with respect to hydraulic facilities and
6 what else is done to protect wild rice beds vis-a-vis
7 the existing system. And if it is convenient to
8 shorten this up, to make this -- I believe it is
9 transcript undertaking 142.78. Would that be
10 satisfactory?

11 MR. BARRIE: A. Yes.

12 ---UNDERTAKING NO. 142.78: Ontario Hydro to provide a
13 list of where else wild rice is
14 protected with respect to hydraulic
15 facilities and what else is done to
protect wild rice beds vis-a-vis the
existing system.

16 MR. CASTRILLI: All right. Thank you.

17 Mr. Chairman, subject to the
18 undertakings, those are my questions.

19 THE CHAIRMAN: Thank you. We will
20 adjourn now, take the afternoon break. Fifteen
21 minutes.

22 THE REGISTRAR: This hearing will recess
23 for fifteen minutes.

24 ---Recess at 4:00 p.m.

25 ---On resuming at 4:17 p.m.

1 THE REGISTRAR: This hearing is again in
2 session. Please be seated.

3 THE CHAIRMAN: Mrs. Mackesy.

4 MRS. MACKESY: Thank you.

5 Many of my questions deal with
6 transmission, and many of my interrogatories submitted
7 for Panel 2 were deferred to Panels 7, 9, and 11. And
8 perhaps some of the questions today should be as well
9 but I will try them anyway.

10 I have prepared a package of
11 interrogatory responses and given copies to the clerk
12 as well as setting out some extras on the second table
13 from the front of the room.

14 Can people hear me?

15 FROM THE FLOOR: Yes.

16 THE PANEL: Yes.

17 CROSS-EXAMINATION BY MRS. MACKESY:

18 Q. Mr. Taborek, you have described the
19 advantages that the bulk electrical system, the
20 transmission system provides in supplying electricity
21 to users. What are the technical disadvantages of the
22 bulk electrical system?

23 MR. TABOREK: A. The technical
24 disadvantages?

25 Q. Yes, yes, of a bulk electrical

1 system.

2 A. And I guess -- compared to what?

3 Q. Compared to a local supply.

4 A. Oh, okay. I don't believe there are
5 technical disadvantages in that if you started with
6 a -- and historically the electricity system evolved
7 from a series of isolated points. Technically the
8 pressure is to cause you to link those points into a
9 network and technically the advantages are so great as
10 I am not aware of there being disadvantages.

11 Q. Perhaps I could just ask a couple of
12 follow-up questions on that. When I suggested to
13 someone asking this question, they said that is
14 probably what you would say. (Laughter).

15 This is based on some testimony that Mr.
16 Barrie gave earlier. In Volume 24 on pages 4232 to 33,
17 he mentioned that if Ontario Hydro had had extra
18 generation away from the Bruce site, it would have been
19 of some advantage during the outages caused by the 1985
20 Barrie tornado.

21 And I am wondering whether concentrating
22 large blocks of generation at a few points such as is
23 done under the bulk electrical system now, so that if a
24 key component is lost, large chunks of power are lost
25 and they have to be replaced with large chunks of power

1 from somewhere else in the system or outside it. Could
2 that be looked upon as a disadvantage of what you have
3 now?

4 A. I wouldn't see that as an argument
5 for isolated versus integrated. I think what you would
6 be looking at now are the pros and cons of different
7 sizes of generation in an integrated system. And in
8 that case the larger the concentration of block or unit
9 size, taking into account the system size, of course,
10 then you have different kinds of problems to look at.

11 Q. So this concentration can be a
12 problem if it's carried too far?

13 A. Yes, it definitely has to be taken
14 care of in the design and it can cause problems.

15 Q. Are there disadvantages to
16 interconnections in that problems in another utility
17 could move back through the lines into Ontario causing
18 massive outages?

19 A. Yes, I think that it was November
20 1965 when there was a blackout that affected a large
21 part of Eastern North America that I think would
22 illustrate the kind of problem you are referring to.
23 And again you have to design to avoid those things.

24 Q. Is the system still prone to that
25 type of problem?

1 MR. SNELSON: A. Major changes were made
2 for the design philosophy for bulk transmission systems
3 as a result of the 1965 incident. And it was as a
4 result of that, that the reliability councils called
5 NERC, North American Electric Reliability Council,
6 covering the whole of North America and their various
7 regional councils, including the Northeast Power
8 Co-ordinating Council, NPCC, to which we belong...

9 And this structure of reliability
10 councils was set up as a result of that 1965 incident
11 to ensure that transmission planning and
12 interconnection planning is co-ordinated to prevent
13 such incidents recurring.

14 Q. But it still could recur or are you
15 saying that there is no chance of that now?

16 A. It's a very small probability of
17 problems in one system occurring as sort of overflowing
18 into another system, and that has to be balanced
19 against the benefits of interconnection which really
20 allow for problems in one area, all the other areas to
21 come to that area's assistance, so it is a two-way
22 situation.

23 Q. I have some questions now about
24 whether Ontario Hydro uses transmission to make up for
25 generation shortcomings. And first, does Ontario Hydro

1 use transmission to make up for not having enough
2 generation being located in the major load centres
3 where the demand is?

4 MR. BARRIE: A. That's a strange way to
5 phrase it, if you will. We have major transmission in
6 order to get the generation to the load because, yes,
7 we have generation remote from the load centres. I
8 wouldn't say we are making up for it.

9 Q. Would it depend on the way a person
10 looks at the...

11 A. Yes.

12 Q. Thank you.

13 And next. Does Ontario Hydro use
14 transmission to make up for generation not being of the
15 type wanted at a certain time; for instance, if you
16 want -- if you have fossil but you don't want to use
17 it, do you use transmission to bring in the nuclear...

18 A. Yes, I think I have said in my
19 earlier testimony, a transmission system allows us to
20 use whatever generation is optimum at any given time;
21 so normally that means the cheapest, but it can also
22 mean that we can respect an environmental constraint or
23 some other constraint upon us.

24 Q. And it uses transmission to make up
25 for generation not being reliable in that if...

1 A. Because we have the transmission
2 system, any unreliability of any generation anywhere
3 can be made up by generation somewhere else in the
4 province, yes.

5 Q. And does it use transmission to make
6 up for generation facilities being expensive to build?

7 MR. SNELSON: A. The transmission
8 facilities tend to be less expensive than generation
9 facilities and therefore it is usually economical to
10 build transmission facilities to make full use of
11 generation facilities.

12 Q. And finally, does it use transmission
13 to make up for generation facilities not being welcomed
14 socially in the major load centres?

15 A. The location of generating stations
16 is an issue which has both environmental and economical
17 and technical characteristics. And frequently,
18 generation is located away from major load centres and
19 in that case then there is a requirement for
20 transmission to the load centres.

21 Q. Would you call this a social...

22 A. Social environmental factors and
23 technical factors can influence that.

24 Q. Now I am not sure to whom to address
25 this, so I will just state the question.

1 Does the bulk electrical system tend to
2 concentrate, tend to concentrate the adverse impacts of
3 transmission on the environment of a relatively small
4 number of people compared to the population at large
5 that benefits from cheap, reliable electricity?

6 A. When you have a need for
7 transmission, then it is both more economical and
8 probably less environmentally and socially impacted to
9 build one or two high voltage transmission lines rather
10 than many smaller transmission lines. You would
11 require a great deal more right-of-way and that would
12 impact more people.

13 So, to that extent it's economical to
14 build large transmission lines rather than many smaller
15 transmission lines, and the effect is that fewer people
16 are impacted.

17 Q. And in taking this impact, this
18 adverse impact, they are taking an extra burden in
19 providing this electricity to the population as a
20 whole?

21 A. I am not sure the degree to which it
22 is a burden. Clearly there is a visual impact.
23 Clearly there is the impact in terms of the lost use of
24 the land. And compensation can be paid for that to the
25 people who have to give up their land for a right-of-

1 way. So, there is question in my mind as to whether
2 the burden is adequately compensated for or not by the
3 processes that we go through.

4 Now, transmission issues will be dealt
5 with more by Panel 7 in terms of how we select
6 transmission systems, and transmission siting would
7 come with individual transmission projects.

8 DR. CONNELL: If I could just understand,
9 Mrs. Mackesy. Who is the "they" referred to in that
10 question?

11 MRS. MACKESY: The people who would take
12 the direct impact of the transmission on their property
13 or close to them. And I am thinking of some
14 information in Hydro's State of the Environment Report.
15 And if I turn to that now, perhaps that will make the
16 question more clear.

17 It is Exhibit 21 and it is page 66. And
18 on the second half of the page under "Environmental
19 Planning and Approvals" towards the bottom, it reads:

20 "The Environmental Assessment Act
21 requires that a wide range of land use
22 and environmental factors be considered,
23 including human settlement, heritage
24 resources, recreational use, visual
25 quality, agriculture, forestry, minerals,

1 wildlife, and socio-economic factors."

2 Q. Were you thinking of all of those
3 items, Mr. Snelson, when you gave your previous answer?

4 MR. SNELSON: A. Yes, I am aware that
5 transmission line siting and transmission system
6 planning has resulted in substantial environmental
7 assessment hearings to assess factors such as the ones
8 you mentioned.

9 Q. And there are adverse impacts under
10 each of those?

11 A. There are potential impacts under
12 those areas, and the selection of routes and the
13 selection of mitigation and compensation measures is to
14 minimize those impacts.

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1 [4:31 p.m.] ...Q. And would this be another case then
2 where when a route is selected, the people who end up
3 hosting this right-of-way have to put up with adverse
4 impacts that the general population does not, to the
5 extent that these impacts cannot be mitigated and that
6 compensation may not be of the -- of what the property
7 owner deems suitable?

8 A. Almost by definition, any impacts
9 that are not mitigated or compensated are residual
10 impacts that would be felt by those people.

11 Q. You would agree that there are
12 residual impacts then?

13 A. I'm not familiar with all the details
14 of them. As I say, Panel 7 is our transmission experts
15 in particular.

16 Q. Now I would like to turn to the first
17 interrogatory, and the first one I'm going to speak to
18 is on page 6 of the interrogatory package.

19 Ms. Ryan, I think this should be
20 addressed to you. I'd like to ask some questions about
21 section 3 of the environment division's March 1, 1990
22 business planning assumptions, as shown in
23 interrogatory response to 14.61. The section refers to
24 transmission line effects, EMF. Those are electric
25 magnetic fields, is that what EMF stands for?

1 MS. RYAN: A. Electric and magnetic
2 field effects, yes.

3 Q. Thank you. And I will just read
4 section 3:

5 "Health affects resulting from
6 electric and magnetic fields from
7 transmission and distribution lines
8 continue to be a high-profile issue. It
9 will receive increased attention as
10 approvals for construction of new lines
11 are sought. The application of a prudent
12 avoidance policy to reflect results of
13 recent studies may require changes in
14 design and/or rights-of-way policies.
15 Corporate relations, regions, design and
16 construction, and corporate planning
17 branches should include this issue."

18 And my first question is what do you mean
19 by "prudent avoidance" in that section?

20 A. Prudent avoidance means to me that
21 where there are opportunities to avoid the problem at
22 hand, you will take them.

23 Q. Can you speak to it directly in terms
24 of this situation?

25 A. With transmission lines, a lot of

1 that would occur at the siting stage. So that during
2 an environmental assessment, when the various
3 alternatives for location of a line are being
4 considered, that the most significant environmental
5 impact areas would be avoided.

6 In addition to that, there are options
7 for the width of the right-of-way and the design of the
8 tower and the line structure. But again, the detail of
9 those specifics would better be addressed to Panel 7.
10 But it is in the early stages doing all you can to
11 foresee and avoid future impact.

12 Q. Have there been any decisions made by
13 Ontario Hydro regarding the matters you mentioned, such
14 as width of right-of-way? Have you come to any
15 proposed changes regarding that?

16 A. My understanding is that our current
17 practice for right-of-way width and design is
18 consistent with what is interpreted as being an
19 acceptable level of electric and magnetic field at the
20 edge of the right-of-way.

21 Q. Has there been any change in that,
22 let's say over the past four or five years, which you
23 are aware of?

24 A. Not to my knowledge, but again, the
25 people that would know that best are on Panel 7.

1 Q. Thank you.

2 Are you advocating that the lines should
3 be kept out of built-up areas more than they are now?
4 If a proposal were to come before the environment
5 division, would you look at it from that point of view?

6 A. Certainly at the design stage for a
7 line, to put it on a right-of-way which avoids, to the
8 extent possible, built-up areas, would be preferable to
9 going by a built-up area.

10 Q. Do you recognize that would increase
11 the burden of these lines on people in the country, and
12 perhaps on farms to an even greater extent than is
13 happening now, in the sense that they might become even
14 more likely targets for location of rights-of-way?

15 A. Yes.

16 Q. Do those who are directly affected by
17 having transmission lines built on their property have
18 a choice in the matter, or are they compelled to accept
19 the lines once approval of a project has been given?

20 A. My understanding is that during the
21 environmental assessment process, each landowner that
22 would be affected becomes part of the process and has a
23 chance to give their view. So I would think they would
24 have a...

25 Q. But after the decision is made, there

1 is no choice.

2 A. I am afraid I'm not familiar with
3 that part of the process to be able to say.

4 Q. If you are not familiar with that
5 part of the process, how do you fulfill your task of
6 environmental advocacy, when a design such as this
7 comes in front of you for a sign-off, whatever it is?

8 A. I guess I don't work alone, and
9 unfortunately my background is not transmission, so
10 there are people that would do that.

11 I think the area that you are getting
12 into is Panel 7, but you are quite right, that in
13 looking at the proposal for a transmission line, the
14 various aspects of what populations are being affected
15 and what their perception of the impact is important in
16 considering any given path.

17 Q. This is just to get a better idea of
18 what your division is doing. When you are considering,
19 or if you were to consider a project in terms of
20 signing off or whatever it is called, would you take
21 into account the compensation and mitigation that is
22 included in that project, in terms of realizing, if
23 such is the case, that the people who have to take the
24 facilities are compelled to under the law?

25 A. Yes, the types of questions we would

1 ask would be what alternatives did you consider, where
2 does it go, what groups are affected, what sort of
3 input did you get from the affected parties, and then
4 to follow-up, what mitigation and compensation is being
5 built into the plan.

6 Q. Would you consider that they are
7 entitled to something extra because of the compulsion
8 element involved? Or have you considered that in the
9 past?

10 A. Not to my knowledge. I guess that is
11 one aspect of compensation that is possible, and it is
12 a balancing of the implications for the individuals
13 affected versus what is an appropriate, if you can't
14 mitigate it completely, then what sort of compensation
15 is appropriate.

16 So, from a general principle of looking
17 at it, it seems reasonable to say definitely yes or no.
18 Without a specific example, I couldn't.

19 Q. Last week I gave Ms. Formusa copies
20 of some interrogatories that were answered by Panel 3.
21 They are on pages 2 and 3 of the interrogatory package.
22 The number is 3.29.4 and 3.29.5. And I'm just going to
23 read the questions, Mrs. Ryan, and ask for your comment
24 on these questions. First of all, the question from
25 3.29.4:

1 "Are there generation and transmission
2 impacts which Ontario Hydro by default
3 makes external costs because it refuses
4 to accept that they are valid costs, for
5 which it should provide full compensation
6 and/or mitigation? And, for instance,
7 does Ontario Hydro recognize that a
8 person might not be willing to sell his
9 or her property or to allow Ontario Hydro
10 to use it, because he or she has uses for
11 the property which give it a greater
12 value to him or her than Ontario Hydro
13 values it at?"

14 THE CHAIRMAN: I am sorry, is there a
15 question to follow on from that?

16 MRS. MACKESY: The following-on question
17 would be the one on the next page, page 3:

18 "Does Ontario Hydro recognize that
19 farmers might regard their property this
20 way?"

21 THE CHAIRMAN: And those questions were
22 answered.

23 MRS. MACKESY: They have been answered by
24 Panel 3. I'm wondering what sort of answer someone
25 from the environmental division would give to this.

1 THE CHAIRMAN: Oh, I see. You want to
2 see -- all right.

3 MS. RYAN: I'm just going to read through
4 the answer on the first page.

5 MRS. MACKESY: Q. That is fine.

6 MS. RYAN: A. I'm in general agreement
7 with the answer on page 1. Was there something
8 specific that you wanted to ask?

9 Q. I wasn't going to ask you about page
10 1 actually. I just included it because the answer was
11 referred to in the answer to 3.29.4. I thought you
12 might be interested in that before commenting on it.

13 A. I think it is fair to say we
14 recognize there are residual effects or costs, but we
15 haven't necessarily defined them in dollar terms, and I
16 think the answer on page 1 explains how we have dealt
17 with them.

18 Q. What is your opinion on the answers
19 to pages 2 and 3, to Interrogatories 3.29.4 and 3.29.5,
20 going beyond the answer at 3.29.1?

21 A. I think we recognize that different
22 people have different values for their property or
23 their use of land, and to that extent we try to
24 recognize it.

25 Q. Would you recognize that farmers may

1 have that, too, and may be interested in more than just
2 how much bushels of corn they get to an acre?

3 A. Yes.

4 Q. Thank you.

5 Now going on to how -- this really
6 relates back to the section of Exhibit 21, page 66,
7 that I read before.

8 Is there any chapter in the Demand/Supply
9 Plan itself that addresses transmission impacts in
10 detail, such as the factors listed in Exhibit 21, page
11 66?

12 MR. SNELSON: A. No, there is not in the
13 Demand/Supply Plan Report, Exhibit 3.

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1 [4:45 p.m.] Q. Why not?

2 A. Because the focus of the plan is
3 generation and alternatives to generation, including
4 demand management, non-utility generation and
5 purchases. There are other documentation of impacts of
6 transmission, and some of which I believe are in
7 evidence in this hearing.

8 Q. However, approval for transmission is
9 being requested through this hearing.

10 A. Only approval of rationale and need
11 and the transmission, the transmission siting and other
12 such considerations will be considered in separate
13 environmental assessment processes.

14 Q. But this is the beginning of the
15 process whereby someone who ends up with a line on
16 their property as a result of those future specific,
17 project-specific hearings, this is the beginning of the
18 approval process for that eventual?

19 A. Yes. But the specific areas that
20 will be affected can't be identified until specific
21 siting proposals are made.

22 Q. But there have been areas targeted
23 for transmission?

24 A. We have shown illustrative sites for
25 generation which imply for those sites certain general

1 requirements for transmission. They are provided for
2 illustrative purposes, not as being an exclusive set of
3 the places where things have to go, where things will
4 go.

5 Q. But in addition, there have been
6 transmission areas delineated in the notice map that
7 was part of the notice for this hearing; is that not
8 so?

9 MRS. FORMUSA: Perhaps I should just
10 clarify what I think Mrs. Mackesy is getting at. The
11 areas associated with radial transmission were also
12 identified on the notice map, and I think that's what
13 you are after.

14 MRS. MACKESY: Yes.

15 MRS. FORMUSA: In particular, with the
16 Bruce station there is the longest piece of radial
17 transmission, but also with the North Channel there was
18 an area identified for radial transmission as well. So
19 those are the other areas that I believe she is
20 referring to on the notice map.

21 MRS. MACKESY: Yes.

22 Q. Now, you mention the transmission
23 impacts will be covered in detail in Panel 7, is that
24 where the mitigation of adverse impacts on transmission
25 will be addressed?

1 MR. SNELSON: A. Yes.

2 Q. And will the present compensation
3 policies for transmission rights-of-way be addressed
4 there?

5 A. To the extent that they are relevant
6 to this proceeding.

7 Q. In Panel 7?

8 A. Yes.

9 Q. Now, I understand that questions on
10 transmission line life expectancy have been referred to
11 Panels 3 and 7, and I am wondering where the life
12 expectancy of the transmission right-of-way will be
13 addressed? And by that I mean, will the right-of-way
14 ever revert back to the property owner or his or her
15 descendants or successors? Is that sort of issue
16 addressed anywhere?

17 MRS. FORMUSA: I think if you were to ask
18 the question of Panel 7, I have a witness on that panel
19 that could provide the answer. Certainly an
20 interrogatory, we could do it, but we do have policies
21 with respect to reversion back to rights-of-way.

22 MRS. MACKESY: Okay.

23 Q. Now, going back to Exhibit 21, and
24 this time page 75. Ms. Ryan, in your evidence in chief
25 you mentioned secondary land use, I think. Does that

1 apply to both the land owned by Ontario Hydro and the
2 land over which it has an easement or a lease?

3 MS. RYAN: A. I know it covers the land
4 owned by Ontario Hydro. I am not sure on the easement
5 aspect of it.

6 Q. Will questions on that be addressed
7 to Panel 7 as well?

8 A. Yes.

9 Q. So if I were to go on and ask, I
10 could try this, if it applies to land owned by Ontario
11 Hydro, what control does the property, the adjacent
12 property owner have over unwanted secondary use of the
13 land?

14 A. Since the person makes application to
15 Ontario for the secondary land use, I would assume that
16 if the adjacent landowner had some problem with the
17 types of uses, that that would be negotiable. But I
18 don't know myself.

19 Q. Maybe I am not saying this very
20 clearly. I am not thinking of the adjacent landowner
21 as being the person who is applying for the secondary
22 use--

23 A. Yes.

24 Q. --but a third party. Yes.

25 MRS. FORMUSA: Maybe I could help again.

1 We take a limited easement but we do own
2 some rights-of-way. And the secondary use policy,
3 although not explicitly stated here, applies to land we
4 own. We can't control areas of which we have no
5 easement. The easement is limited for the purposes of
6 transmission and distribution of electricity, but the
7 rest of the right-of-way is still the landowners. It
8 is just an easement in law.

9 THE CHAIRMAN: But if it's Hydro land, I
10 think the question is to what extent do you permit
11 others to use the Hydro land for secondary uses, do you
12 confine it to the adjoining owners or would you have
13 third parties.

14 MRS. MACKESY: Yes. There are two parts
15 to it. One refers to land owned by Ontario Hydro, and
16 I think Mrs. Formusa is speaking of land over which
17 Ontario Hydro has just an easement.

18 MRS. FORMUSA: Perhaps we could deal with
19 this through interrogatories. But there is a
20 distinction between land we own in fee simple and land
21 we own in easement, and the rights of adjoining
22 property owners and the rights of owners over whose
23 land the easement pertains to.

24 MRS. MACKESY: Okay.

25 THE CHAIRMAN: Just to finish that. If

1 it's a right-of-way, it's governed by the terms of the
2 right-of-way.

3 MRS. FORMUSA: Exactly.

4 THE CHAIRMAN: And the person who has the
5 dominant tenement or owns the fee is a party to that.

6 MRS. FORMUSA: Yes.

7 THE CHAIRMAN: But I think the question
8 was about Hydro land as opposed to right-of-way land,
9 whether the secondary use of that land is dealt with,
10 whether there is any restriction in Hydro's policy as
11 to who they deal with as a secondary. Do they just go
12 to adjoining owners, as municipalities would do, for
13 example, if they were closing up a road, or do they
14 deal with the world on the use of that land? I think
15 that's the question.

16 MRS. FORMUSA: With respect to that, we
17 haven't filed an answer to an interrogatory. There is
18 a secondary land use policy and we would be happy to
19 provide it to Mrs. Mackesy.

20 MRS. MACKESY: Thank you.

21 THE CHAIRMAN: All right.

22 MRS. MACKESY: Q. Ms. Ryan, I think I
23 heard last week that one of the environmental
24 considerations addressed in Exhibit 4, the
25 environmental analysis, was the distribution of risks

1 and benefits. Am I right in that?

2 MS. RYAN: A. Yes. It establishes
3 criteria to assess the various options in categories.

4 Q. I just would like to turn to page 3-5
5 in Exhibit 4. This is at the bottom of the page, at
6 the bottom of Column 3, where there is the heading
7 "Distribution of Risks and Benefits." I will just read
8 out what it says.

9 "This criterion will consider the
10 distribution of benefits and risks of the
11 alternative plans among population
12 groups, regions and generations.
13 Generally, it is preferable that those
14 who bear the risk also share equitably in
15 the benefits."

16 And I have a follow up question. Is the
17 idea that those who get the benefits are the ones who
18 should absorb the burden of the costs of the negative
19 impacts of facilities such as transmission lines
20 addressed anywhere in the Demand/Supply Plan documents?

21 A. So your question is, is this concept
22 developed anymore in the main document?

23 Q. It would be a slightly different
24 concept, I think, because what this is saying is that
25 those who get the benefits -- just a moment, I'm sorry,

1 no.

2 Those who bear the risks should share
3 equitably in the benefits. What I am looking at is
4 from the other side. Those that get the benefits, such
5 as the cheap electricity, should take the impacts
6 rather than somebody who isn't getting so much of a
7 benefit from it. I am thinking of a situation where
8 the need would be in the large urban areas but the
9 transmission line to bring that power in, it has to go
10 through rural areas which don't need anymore
11 electricity supply.

12 A. I don't know that there is anything
13 specifically to that in the plan document itself.

14 My understanding is that in this process
15 of assessing all of the plan alternatives, this is one
16 of the criteria that has been established for balancing
17 what is acceptable and what is not acceptable.

18 Q. You are referring to what I read from
19 page 3-5?

20 A. Yes.

21 MRS. MACKESY: This might be a good place
22 to stop in my questioning.

23 THE CHAIRMAN: All right, we will stop
24 then. Now, we won't be sitting tomorrow because we are
25 going on a site visit. So we will be adjourning this

part of the hearing until Wednesday morning, the 12th
of June, at ten o'clock.

THE REGISTRAR: This hearing will adjourn
until Wednesday, 12th of June, ten o'clock.

---Whereupon the hearing was adjourned at 4:57 p.m.
to be resumed on Wednesday, June 12, 1991, at
10:00 a.m.

